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SEPTEMBER 1991

SOFTWARE APPLICATIONS PRODUCTS IN THE EUROPEAN BANKING AND FINANCE SECTOR

AN ANALYSIS OF SELECTED
VENDORS IN FOUR COUNTRIES
IN WESTERN EUROPE

for

COGECOM SA.
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Introduction

Introduction

A

Objectives

The overall objective of the study is to obtain a good understanding of the European market for software applications products in the Western European Banking and Finance Sector. Specifically the study identifies the leading products available, for both back- and front-office, and provides essential data on both the products and the vendors marketing these products. The study also provides commentary on the evolving needs of the banking and finance sector for software applications products.

B

Scope and Methodology

1. Scope

The scope of the study is defined by the following parameters:

- The European countries researched:
  - France
  - Italy
  - Spain
  - U.K.

- Vendor information
  - Revenue history
  - Revenue analysis
    - Products
    - Industry sector
  - Banking and Finance Sector Revenue Analysis by European Country

- Product information (banking and finance products only)
  - Product description and principal functions
  - Equipment platforms
    - IBM
    - Digital
    - Bull
    - UNIX
    - ICL
  - Product origin/history
  - Product pricing data
  - Marketing channels
  - Target markets

- User Trend Information
  - Vendor perception of banking and finance institutions' evolving needs.

  - Specific needs for application software products today and in the future.

2. Methodology

The research study commenced with a meeting between Cogecom and INPUT to confirm the study objectives and to plan its schedule. A questionnaire designed to meet Cogecom's study needs was agreed at this meeting. Utilising INPUT's existing research files on the software and services industry, leading vendors of software applications packages for the banking and finance market were identified. INPUT then contacted these organisations by telephone and/or face-to-face interviews to elicit detailed product and company information. During this process additional questions were posed to determine:

- Further competitive products and vendors not revealed through initial desk research,

- Vendor views and commentary concerning user issues and trends that identify the evolving needs in information systems in general and software application products in particular.

Research was conducted separately in each of the four countries, and an interim synopsis of INPUT's findings was presented to Cogecom on 5 July 1991 in Paris.

3. Professional Staffing

The project was conducted under the overall supervision of INPUT Vice President for European Research, Mr. Peter Lines. Mr. Michael Longy, an INPUT Principal Consultant, was assigned to the project to prepare the report. Additionally, INPUT associate research analysts were employed for vendor interviewing as appropriate.

C

Report Contents

INPUT has prepared this written report to bring together the study findings. The report contains the vendor and product profiles and an analysis and commentary on the market and its evolving needs.

The remaining chapters of this report are structured as follows:

- Chapter II contains a strategic overview distilled from the research findings and analyses.
- Chapter III contains a country-by-country analysis of the industry sector, its information systems and software products requirements, and descriptions with summary charts of each vendor and its software applications products relevant to the banking and finance sector.
- Appendix A shows the economic assumptions and exchange rates used in the market analyses.
- Appendixes B to E contain the detailed interview reports from each country.

Strategic Overview

Strategic Overview

The objective of this chapter is to act as a summary of the whole report. It provides commentary on INPUT's findings and recommendations for further action on the part of our client. After the top-level discussions in sections 1 and 2, each set of country findings is summarised in a separate section, after which INPUT presents the final recommendations.

A

European Overview

1. The Banking Sector in Europe

Europe is not immune to the crisis currently being experienced by the banking sector worldwide:

- International banks are merging to improve their joint capabilities in order to survive the serious market conditions engendered by a recession that has proved longer and deeper than originally predicted. The merger of Manufacturers Hanover and Chemical Bank is the most notable case.
- Banks are going into administration and receivership. Two well-publicised examples can be cited:
  - The merchant banking arm of the British & Commonwealth Group in the U.K.
  - The Bank of Credit and Commerce International (BCCI), which has its headquarters in Luxembourg but is essentially an international bank.
- At best the major banks in Europe, such as the National Westminster in the U.K., are continuing to report lower profits and/or difficult trading conditions.

At the same time, a number of earlier business initiatives are still being implemented, particularly in countries such as Italy and Spain where the banks are striving to update their methods of doing business and streamlining their organisations in order to meet the challenges posed by the single European market of 1993.

This is causing a paradoxical situation to exist:

- On the one hand, banks are putting in place new systems to handle new types of business and even undergoing further diversification into insurance, securities and other trading markets,
- While on the other hand, some banks are instituting serious reviews of their businesses in all aspects and at all levels, leading to calls for retirement from core activities and a pause in capital spending on innovative projects.

The situation in the banks has its analogue in the information systems and information services markets, where in some ways there is more of a strategic crisis and considerable restructuring, as evidenced most recently by the acquisition of Philips Information Systems division by Digital Equipment and the strengthening of Cap Gemini's share structure through the purchase of an equity stake in it by DEBIS, the Daimler Benz group information services company.

Exhibit II-1 lists some of these major issues currently affecting banking and banking systems.

EXHIBIT II-1

Key Issues and Trends in the Western European Banking and Finance Sector

- The world banking crisis
- Retrenchment versus diversification
- IS spending pause
- Mergers in banks
- Consolidation in the IS sector
- Outsourcing

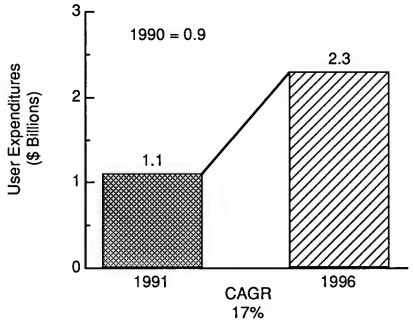
In spite of current difficulties in the sector, INPUT is forecasting considerable continuing growth in banking and finance systems applications software products.

- There is increasing user interest in the role of software products in those countries where customised software solutions were or are the norm,
- The need to provide timely software solutions within budget is leading vendors to productise offerings from the results of projects previously undertaken as tailored solutions.

Exhibit II-2 gives the INPUT five-year forecast for applications products in this sector across the whole of Western Europe.

EXHIBIT II-2

Banking and Finance—Western Europe Applications Software Products, 1991-1996



2. Strategic Challenges for IS Vendors

The short- to medium-term challenges for IS vendors relate to the differing user requirements in each country market. As stated earlier, these are subject to two contradictory influences:

- Recessionary retrenchment
- Upgrading to meet competitive pressures

The winner between these two opposing forces varies according to the maturity of the sector in each country:

- Maturer countries such as the U.K. and France are liable to be veering towards the more cautious retrenchment policies.
- Less mature countries such as Italy and Spain need to catch up with their maturer rivals to survive.

Banking systems have been traditionally based on the customer account as the unit of service product. Banks know they need to re-orientate their thinking towards a total customer service approach. Many financial services institutions, as well as the banks, have already started to redevelop their systems with this in mind. This is a non-trivial exercise for the major companies, involving:

- Planning for flexibility in developing future services around the new customer databases,
- Running the existing systems and organisational units until the new systems are implemented.

This is a major opportunity for services vendors, but the role of software products in it and the use of application development tools to speed the process are key issues:

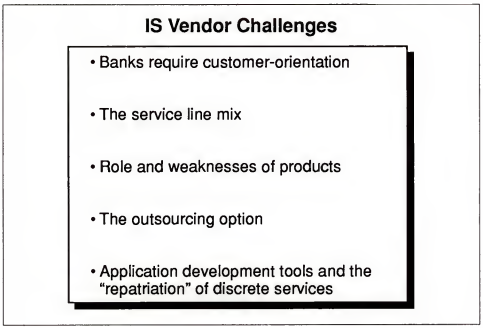
- Application products, although providing speedy implementation, can—if not well selected—prove to lack the necessary flexibility for the new generation of systems.
- Customisation of products, if it is feasible, can increase the competitive edge furnished by the system by making it more germane to an individual organisation's requirements—i.e., less of a generic commodity. But customisation can be costly and lead to some of the problems associated with tailored solutions.

- Application development using CASE tools offers the user the potential for an optimum solution using in-house resources of IS professionals.

- The complexity of the decisions involved is inducing some users to examine the option for outsourcing major applications or a suitable portion of their infrastructures in order to be able to control costs and project timescales.

The key activity for IS vendors at the present is to offer a flexible but well-defined set of service lines from which to "mix and match" the right solution in each special case. Exhibit II-3 summarises the important challenges facing vendors as described above.

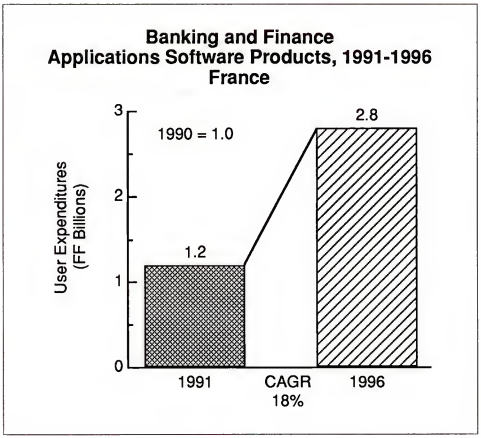
EXHIBIT II-3



3. France

France is the second largest of the country markets for application products to the banking and finance sector in Europe at an estimated $215 million (1,215 million FF) in 1991 user expenditures. With a healthy growth rate of 18% per annum forecast (see Exhibit II-4), the sector is set to give heavy consideration to the use of application products both in banking and securities applications.

EXHIBIT II-4

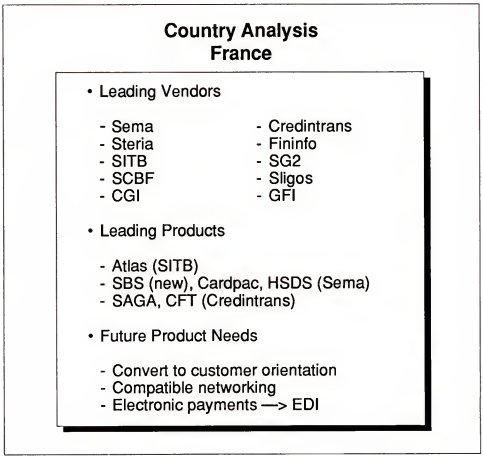


In the short term there are some problem areas:

- Banks are struggling to improve profitability and hence showing some reluctance to indulge in costly investment projects,
- Software products are used in many cases as the core of a service offered over a network or on a service bureau basis. Some vendors, notably Fininfo and Credintrans, have been very successful with this approach, but look likely to become vulnerable to banks taking work back in-house,
- The major professional services vendors such as Sema and Steria sometimes have difficulty in shedding their instincts to go for a fully custom solution. Also they have difficulty in establishing brand images for some of their products. This is more true of Sema than of Steria.

Exhibit II-5 summarises some of the leading vendors marketing these products in France and some of their leading products, as well as showing the key future needs for users in France.

EXHIBIT II-5



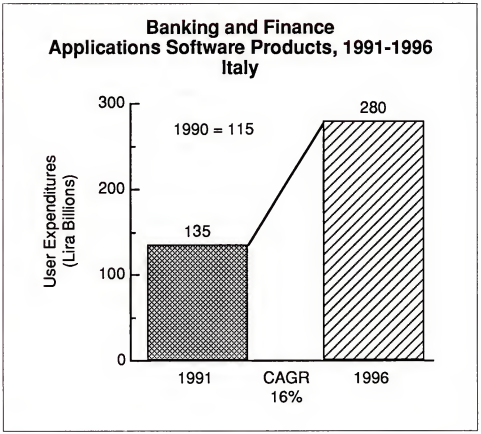
4. Italy

Italy has a relatively undeveloped banking sector, although the use of software application products is strong particularly with standard products running PC applications. Some of Italy's medium-sized indigenous vendors are continuing to develop major products, although others have clung tenaciously—under user control and with their approval—to implementing custom solutions.

The market for applications products is expected to reach $110 million (Lira 135 billion) in 1991, but grow more slowly than France, with a CAGR of 16% per annum, as shown in Exhibit II-6.

Banks used to upgrade their systems to become more competitive in the face of new market entrants from overseas, such as Deutsche Bank and Crédit Lyonnais. However, the bank unions are powerful and resist the moves needed to shed staff and cut fixed costs.

EXHIBIT II-6



Software product vendors in Italy, many of whom have banks as important shareholders, need to make investments to productise their next round of offerings. In many cases, they will need cash injections from overseas to achieve this objective. Some vendors expect to be taken over as a result of coming changes in the marketplace.

Exhibit II-7 summarises the relevant vendors, their products and the most important future requirements.

EXHIBIT II-7

Country Analysis
Italy

- Leading Vendors
  - Data Management
  - System & Management
  - Engineering
  - Datitalia
  - CDS/Concept
  - Finsiel
  - Olivetti
  - IBM
  - Andersen
- Leading Products
  - PUMA 2 (vs. Trend-Eurosystem/IPACRI-Sipe)
  - FIST (Kapiti)
  - [ARCA, SIGEPA]
  - Sara
  - Action 2000, SIM, CREDITEX, TITOLI, SIPS, CHECK, GERE, Minerva
- Future Product Needs
  - Branch systems
  - Front-office systems to spread
  - General upgrade —> Networking
  - Systems operations

5. Spain

Spain is the smallest of the markets examined in this study. At an expected $27 million (2,070 million ptas) of user expenditures in 1991, Spain is the least penetrated by application software products. Vendors interviewed emphasised a distinction between application products (which can be any type of solution service line, involving turnkey solutions, customised kernels, CASE tool custom development or any combination of these) and application packages, which are essentially preconstructed solutions. Mainly vendors perceive their offerings as products and fall within the scope of the first of these two approaches. With good CASE tools and methodologies and skilled staff, vendors believe their approach has an edge in two respects:

- Just as cost-effective as the package approach
- Produces a closer match to the user's requirements and thus maximises added value in the eyes of the client.

Spanish banks are expected to merge (some already have, e.g., Banco Central and Banco Hispanoamerica) over the next two years in preparation for 1993. However, there is also an apparent reluctance to be the next to take this route. Vendors of applications products have recently noticed a pause in decision making, with 1991 being a more difficult year than 1990. Nevertheless, some vendors of services are still experiencing growth rates per annum between 50% and 100%.

INPUT forecasts a growth in the market of over 22%, as shown in Exhibit II-8, with a particularly strong need for products to sit in a rapidly evolving networking environment. Exhibit II-9 lists the important vendors, their products and some of the key applications requirements. The Spanish market is more open to the 'open systems' approach than that of Italy and the other major countries, where IBM's presence is dominant in the banking equipment sector.

EXHIBIT II-8

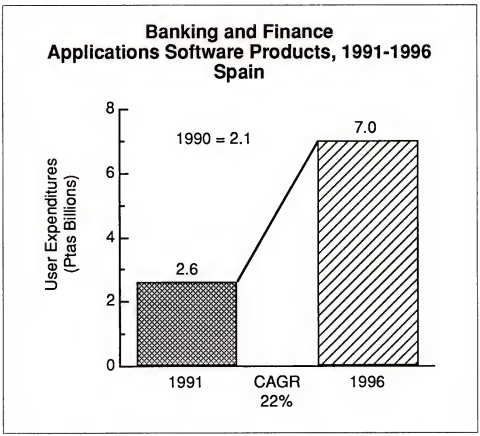
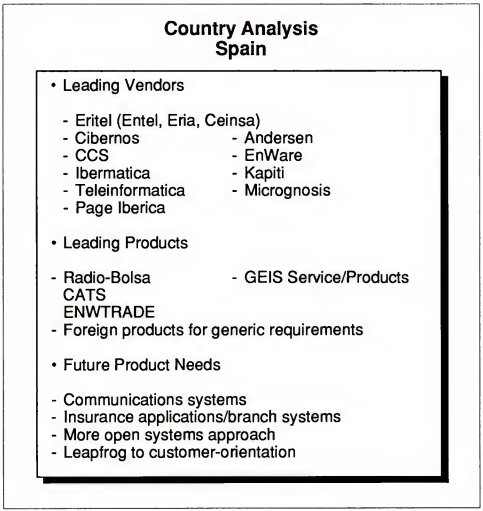


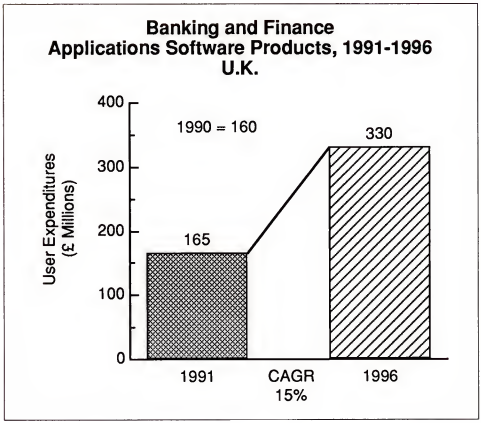
EXHIBIT II-9



6. United Kingdom

Due to the presence in its economy of the City of London, the world's largest financial centre, the U.K. has the largest sector for applications products. A particularly strong subsector is the international banking area in which IBM midrange systems are dominant. By the same token, the U.K. has been most severely hit by the current recession, as is shown in Exhibit II-10. The sector is expected to grow by only 3% in real terms between 1990 and 1991 and this is also caused by the pause in spending plans that is being felt all through the European banking sector. The market in 1991 is forecast to reach $320 million (£165 million) for applications products.

EXHIBIT II-10



Growth over the five-year period is forecast to attain a CAGR of 15% per annum, taking into account the major needs that exist:

- To introduce or to complete a comprehensive reorientation of systems design towards the customer service database concept,
- To continue the ongoing move away from centralised systems.

Exhibit II-11 lists the vendors active in the U.K., their leading products and the key product requirements that remain outstanding.

EXHIBIT II-11

Country Analysis
U.K.

- Leading Vendors
  - BIS
  - SD-Scicon
  - CMG
  - McDonnell Douglas
  - Cumulus
  - Sema
  - Base 24
  - ACT Financial/Quotient
  - Winter Partners
- Leading Products
  - Midas ABS, Fundmaster, DR-One
  - Connex, Taurus Link
  - Cardpac, IBOS, HSDS; Base 24
  - MicroBank, Fund 2000
- Future Product Needs
  - Customer orientation on hold
  - End-user systems required
  - Global on-line access
  - Cost-effective development
  - Good global platform

B

Conclusions and Recommendations

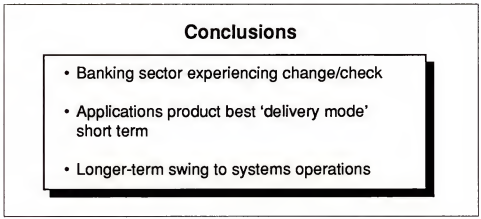
Although the banking sector is undergoing a radical reorientation involving all aspects of the business, INPUT concludes that now is a good time for market entrants to establish their credentials:

- Banks and other users will be prepared to look kindly on new, innovative but sound business approaches to their continuing problems.
- Software products have become acceptable in all four countries examined in this study as a means of implementing applications in the financial sector on time and within budget.

Exhibit II-12 summarises INPUT's main conclusions, including the belief that systems operations (SO) as a delivery mode to banks will become increasingly popular. We can already see this trend in the network outsourcing contracts recently placed in the U.K. by the Midland and

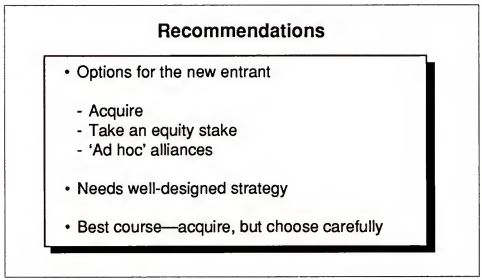
National Westminster banks, and in France by BNP. This trend will not in the short term affect the popularity of using applications products to implement major systems, particularly with the small and medium-sized financial institutions.

EXHIBIT II-12



INPUT has considered the three market entry options listed in Exhibit II-13 and favours the acquisition route in the circumstances in order to underline the strengths of Cogecom's intended commitment (if one should be decided on) and to ensure adequate control and presence in an emerging regional marketplace. However, the decision would need to be backed up by considerable analysis of existing products and their match to future requirements before deciding to proceed. This report can act as a stimulus and guide to any further research, analysis or market surroundings that may now be required.

EXHIBIT II-13



Country Market Overview and Vendor Profiles

Country Market Overview and Vendor Profiles

This chapter summarises the findings of the INPUT interviews in each of the four countries visited for face-to-face research:

- France
- Italy
- Spain
- U.K.

Each section describes the research for an individual country and details the findings under the headings of:

- The status of banking in each country,
- The development status of information systems and services in banking in each country,
- Software products' use in banking as exemplified by the products and vendors researched.

A

France

1. Status of Banking

Exhibit III-1 lists the top ten French banks in terms of asset size.

EXHIBIT III-1

Top 10 Banks in France

Bank	Assets ($ Millions)
Crédit Agricole	214
BNP	182
Crédit Lyonnais	168
Groupe Ecureuil	150
Société Générale	144
Paribas	122
CIC Groupe	62
Banques Populaires	53
Banque Indosuez	47
BFCE	38

Source: *The Banker*

After several years in which France's banks were able to compensate for the earlier erosion of their profit margins by increasing business volumes, some of France's leading banks reported sharp falls in profits in 1990: down 53% for Banque Nationale de Paris (BNP), down 25% for Société Générale, down 26% for Paribas.

The handful of banks that reported higher profits were able to do so only because of unusual circumstances. Crédit Commercial de France (CCF), for example, reflected the difficult market conditions with an 8% decline in operating profits, but after scrutinising most of its sovereign debt the previous year, it was able to slash its country risk provisions, allowing net profits to rise by 15%.

Crédit Lyonnais, which announced the best figures with a 19% increase in net profits, did so only because of the integration of Altus Finance, the former banking arm of the Thomson electronics group. The parent bank, like its competitors, recorded lower earnings. Group earnings per share declined, too.

The banks have been hit on a number of fronts at once, with profit margins and volumes both suffering at the same time as a sharp deterioration in the quality of credit risks.

In the capital market sector, banks continued to record poor results. Corporate lending showed some recovery in volume, but this was more than offset for most banks by the number of defaults both in France and abroad where banks like Crédit Agricole, Paribas, Indosuez and Crédit Lyonnais were all caught up in several of the more spectacular U.K. bankruptcies. Crédit Lyonnais nearly doubled overall provisions for specific customer risks, the Paribas group raised its by 40%.

Some banks, like Banque Française du Commerce Extérieur (BFCE), recorded a modest improvement in lending margins in 1990, and this has improved again in the first months of 1991.

However, most banks—Société Générale, for example—said that any reversal in the downwards trend for lending margins had taken place only late in 1990.

Consumer banking also brought its headaches last year. After long neglecting this segment of the market during credit controls, the big retail banks have undertaken a breakneck expansion of their consumer loan portfolios in recent years. Last year, the rate of increase slowed down, and the problem loans began to surface—as consumer credit specialists such as Compagnie Bancaire and Banque Sofinco had long warned that they would.

2. Information Systems and Services in Banking

French banks are changing fast. They have been parochial and recently started suffering from poor profitability. Their existing systems are largely administrative and not customer-oriented. Competitive, customer-oriented systems are a priority since, for example, some banks are introducing asset and liability management services—but have no systems. Also, from 1st January 1993, the reporting laws for French banks will change, thus precipitating changes to and possibly replacement of their existing systems.

French Banks, therefore, currently need to update their basic systems and introduce new ones. This is a major task and cost/resource availability is a constraint. The major banks have large competitive software development groups using 4GLs, etc. Products (including kernel software) are seen as a way of cost containment when implementing new applications.

Risk and profit management is a strong need.

In the research and development area, professional services companies need to work with clients to gain applications knowledge and a lead on the real requirements.

There is intense competition among software vendors. In consequence even large service companies, such as GFI, are focussing on niches rather than mainstream global banking solutions.

New entrants to the market must demonstrate immediate credibility and offer the potential of lower-cost software development for new applications. Products are nearly all kernel software. There must be plans to develop complete package products with full support and maintenance.

Systems operations services are provided to a number of banks and insurance companies, but not always revealed for security reasons. The volume of banking in this area has grown, but vendors do not expect many new clients in the near future.

3. Software Products in Banking

Software products as a delivery mechanism in the French banking sector is fairly well accepted. It differs in one important regard from the approaches encountered in the U.S. or U.K. markets in that it is coupled in the catalogue of many vendors with processing services as an alternative or complementary mode of service delivery to this particular sector. By contrast, in the U.S., U.K. or German markets, software products are twinned with professional services in almost all cases.

Five companies were chosen for detailed research; three—Credintrans, Fininfo and SITB—are essentially specialists working principally in the financial services sector, while the other two—Sema and Steria—are large, well-known, broadly-based professional services companies, ranked second and fifth in the French professional services market.

The first three are clearly active in processing services and software products, while the second two have more general backgrounds across all service lines and industry sectors. Detailed interview reports are included in Appendix B.

4. Credintrans

This subsidiary of an important financial services institution, the CIC, had revenues of approximately $12 million in the banking sector in 1990, representing some 70% of its revenues. Credintrans is deliberately aiming to lessen its dependence on the core business by extending the applicability of its products and services to large retailers and other sectors. The key facts of the organisation are summarised in Exhibit III-2.

EXHIBIT III-2

Key Vendor Parameters—Credintrans

Name: Credintrans

Founded: 1974

Ownership: 100% subsidiary of CIC

Revs. (1990)
- **Total Europe:** 120M FF
- **B & F Europe:** 87M FF

Market Position:

- Specialist processing & SO (systems operations) services company active in the banking field

Banking Sector Activity: Currently 70% of revenues

- Interbank clearing
- EFT
- Financial data systems for banks

There are three principal software products:

- CFT - a file transfer mechanism from any to any environment in open systems mode, for which the company claims a 10,000 licence installed base in France,
- SAGA - a specialist networking interface for the EFT marketplace which is targeted at the IBM/MVS environment and has made 25 or more sales,
- AlphaSIT - another specialist banking product, this time for the French interbank settlement system called SIT; a fairly expensive product, up to $80,000 in one-off fees, it claims only a dozen installations, all in France.

Exhibits III-3 to III-5 illustrate the key parameters of these three product families. Exhibit III-6 summarises INPUT's view of the strategic position of this vendor.

EXHIBIT III-3

Product Profile— CFT

Name: CFT

Launched: 1987

Functions:
File transfers in open systems environment

Platforms: All size of IBM; VAX; Bull; Sun etc. down to PC/DOS level.

Target Markets:
All sectors

Est. No. installed:
10 000 licenses in France; <10 outside

Price range:
5K FF to 250K FF

Competitors:
Segin, part of Axime group

EXHIBIT III-4

Product Profile—SAGA

Name: SAGA

Launched: 1989

Functions: Telecollection of electronic payments

Platforms: Only IBM/VMS

Target Markets: Banks, Large retailers

Est. No. installed: 25

Price range:
260K FF to 1.5M FF

Competitors:
Axime, Sema, IBM, SG2

EXHIBIT III-5

Product Profile—AlphaSIT

Name: AlphaSIT

Launched: 1988

Functions: Teleclearing for SIT (Interbank Telesettlement Network)

Platforms:
- IBM/MVS
- Bull GCOS7/8

Target Markets: Banks

Est. No. Installed: 12

Price range: 600K FF to 1M FF

Competitors: Sesime (from Axime)

EXHIBIT III-6

Vendor Strategy—Credintrans

- Lessen dependence on B&F sector
  - 72% revenues in 1990
  - 60% revenues in 1991
- Target cross-industry product sectors
- Develop banking EDI/EFTPOS products
- Prepare for revival of interest in SO (FM)
- Somewhat traditional and defensive

5. Fininfo

This small, privately owned company has the youngest pedigree of our French respondents. As a start-up in the early 1980s it has profited from the growth of France's securities industry during the decade. It has grown at an estimated average 75% per annum over the course of its eight-year life and now commands revenues of $20 million, all in its chosen field of securities trading support systems. Exhibit III-7 summarises key aspects of the company.

EXHIBIT III-7

Key Vendor Parameters—Fininfo

Name: Fininfo

Founded: 1982

Ownership: Private majority shareholder and second-tier listing

Revs. (1990)
- **Total Europe:** 122M FF
- **B & F Europe:** 100%

Markets Position:
Leading specialist provider of decision support services to the securities trading community in France

Banking Sector Activity:
Provides financial and stock market data and analysis software on a network services basis to front- and back-office traders. Developed its own (10-12) analytical systems marketed on a subscription basis.

The key to Fininfo's success has been to design a product marketing strategy that combines a creative mix of delivery modes:

- Database information
- Analytical software
- Service

The services are marketed as branded software products, but delivered in on-line mode via a network-based subscription technique. The catalogue of software can be classified under three headings.

- Real-time information access routines
- Analytical and administrative support software for dealing-room staff
- Access to historical data in database format for investment and back-office settlement services.

Exhibit III-8 lists INPUT's assessment of this successful company's next set of goals.

EXHIBIT III-8

Vendor Strategy—Fininfo

- Market highly differentiated services as service products in three principal areas:
  - Real-time data access
  - Real-time dealing support
  - Provision of historical data for back-office function support
- Start to expand into Europe
  - Spain first with 'Hispanic' products
- Diversify by selling products to corporate sector (as traders)
- Long-term—develop "supra-national" products

6. Sema Groupe

This company was interviewed in both France and the U.K., where the product marketing was found to differ as a function of the two markets—London's preponderance of interest in wholesale banking's increasing interest in midrange system offerings while Paris is more likely to be using traditional mainframe designs in commercial and retail banking applications. The advanced state of EFT and EFTPOS has led to the common use of many of Sema products for the 'monetique' area.

As with so many large professional services companies, Sema has difficulty in presenting a coherent and easily differentiated service catalogue. This problem has to some extent been addressed by retaining the brand names of subsidiaries and/or products which target the B&F market:

- In France, Base 24 products (see interview profile in section D, the U.K., of this chapter) are installed by Sema itself, whereas in the U.K. they are marketed and installed by the Base 24 Ltd joint venture with the Tandem Corporation,

- Tibet is a subsidiary of Sema, which it acquired in 1990. Tibet handles both the marketing and the support functions of the Investiciel product for portfolio management.

Exhibit III-9 summarises the Sema activity in France in the B&F sector. At 22% of overall revenues, it is of very great significance for the continuing good health of the group. Exhibit III-10 indicates INPUT's assessment of Sema's strategic responses to some of the current threats to large services companies in the sector:

- Tighter bank budgets
- Continuing need for banks to manage diversification into insurance and securities sectors better than they have done in the past
- Possible withdrawal from software-solution outsourcing into doing more through in-house teams.

Further insights into some of the issues facing Sema will be found when reading the U.K. overview section and interview profiles.

EXHIBIT III-9

Key Vendor Parameters—Sema Group

Name: Sema Group **Founded:** 1989

Ownership: Public listings in London and Paris. Five major shareholders hold 88%

Revs. (1990)
- **Total Europe:** 375M FF
- **B & F Europe:** 82M FF (22%)

Markets Position:
Europe's second largest professional services company—joint British-French ownership

Banking Sector Activity:
Claims to be number 1 in banking software in Europe
- Commercial banking
- EFT products
- Capital/financial markets (not France)

EXHIBIT III-10

Vendor Strategy—Sema

- As large company, operates with a mixture of vertical and cross-industry service lines
- Operates with main and subsidiary (TIBET) companies in the B&F sector—also joint ventures (e.g., Base 24)
- European, extending to global, coverage
- Developing synergy between banking and insurance
- Ride out 'sea-changes' in the IS industry
  - Use breadth of portfolio as competitive strength

7. SITB-APB

SITB-APB (SITB) is the longest-established company interviewed in France, dating its foundation as far back as 1952 in the days before computers in commercial applications became commonplace. It is currently the banking software arm of the FITB group, which has agreed to merge into the Axime group.

SITB has a product portfolio that reflects its long history of closeness to the Paris securities markets. This includes:

- Securities systems, such as the Agora, Teknekron, and Titan packages, which can be implemented on a number of platforms—including IBM
- Banking systems, such as Atlas, AppliBanque, and Vertex, for commercial banking and trading activity support
- A range of PC-based products for bank accounting, reporting, international transactions (among other areas) is also marketed.

The details of these products are given in the Appendix of interview reports that appears at the end of this study. Exhibits III-11 and III-12 summarise the key aspects of this company, which is currently undergoing restructuring, made necessary by the requirement to face the rigours of global competition to be expected in the mid-1990s and onwards. In these circumstances, our interviewees were reluctant to issue much information about future directions and strategies.

EXHIBIT III-11

Key Vendor Parameters—SITB-APB

Name: SITB-APB

Founded: 1952

Ownership: Part of Axime Group after merger with FITB

Revs. (1990)
- **Total Europe:** 640M FF
- **B & F Europe:** 627M FF = 98%

Markets Position:
A well-established financial processing services company, now part of a more general grouping of specialist companies.

Banking Sector Activity:
Good range of processing and software services:
- Front-office
- Investment management
- Commercial banking
- Back-office
- Capital markets
- etc.

EXHIBIT III-12

Vendor Strategy—SITB-APB

- Pursue the B&F sector as the specialist arm of the Axime group.
- Axime put together to become third largest French services company
- Need to reconcile processing services and software product approaches
- Need to catch up to its major competitors in terms of international coverage

8. Steria Banque

This is the banking division of the French Steria group. Its revenues of an estimated (in 1990) $120 million in Europe contained $30 million earned in the banking sector, which is one-quarter the size of the equivalent Sema component. Steria suffers from some lack of awareness of marketing techniques, which could be relevant to the company improving the quality of its perceived value, which INPUT notices as a consistent trait with many of the recognised leaders in the professional services sector.

Steria has over 30 package software products addressing the B&F sector. Many of these are communications-orientated and, therefore, contribute to the company being well positioned to take advantage of improved telecommunications on a global scale. On the other hand this is a large number of products to maintain and support on a worldwide stage. (Steria has recently been putting together a plan to extend its overseas contracts base).

Exhibit III-13 and III-14 highlight the significant factors of this important player, its offerings to the sector and its marketing strategy.

EXHIBIT III-13

Key Vendor Parameters—Steria Banque

Name: Steria Banque

Founded: 1969

Ownership: Division of Steria Group

Est. Revs. (1990)
- **Total Europe:** 730M FF
- **B & F Europe:** 175M FF

Markets Position:
One of France's top ten computer services companies with a strong background in technical as well as commercial applications

Banking Sector Activity:
- 24% of overall revenues in 1990.
- Offers a range of 32 products, including many communications orientated
- Active in France, Europe, U.S. and the Middle East

EXHIBIT III-14

Vendor Strategy—Steria Banque

- Offers a wide range of products on a wide range of platforms
  - Mainframe
  - Mini
  - Micro
  - UNIX (1 product)
- Close links with major vendors
  - SI strengths
- Markets products under standard licensing arrangements
- Active in projects using product kernels
- No processing or network services activities
  - Therefore, no entry to systems operations sector

B

Italy

1. Status of Banking

Italian banking is highly fragmented in terms of the number of banks operating and the geographic coverage of each. All told, approximately 1,300 banks have been counted, but this number is expected to halve during the course of the current decade. The number includes four types of organisation:

- Publicly-owned banks with equity held by central or local government,
- Private banks, which may also issue shares to the general public,
- Savings banks, which are usually local or regional in geographic scope,
- Finance institutions, which specialise in commercial lending, leasing and import/export trade financing.

Many of the smaller banks and local savings banks act as agents for the larger national banks. Therefore, there is a tiered structure in which many of the small banks can be thought of as part of the national distribution chain of the smaller number of major names.

Diversifying away from mainstream banking, many banks act as intermediaries for the national insurance companies, where two of the big names are Assicurazione Generali and Assicurazione Italia.

During the 1980s, Italian banks increased their activities in securities trading in line with the growth in the stock markets, principally that in Milan. In comparison with other major Western European countries, Italy does not generate as much trading in overseas and international securities and other financial instruments.

The top ten Italian banks are shown in Exhibit III-15.

EXHIBIT III-15

Top 10 Banks in Italy

Banks	Assets ($ Millions)
Banco Nazionale del Lavoro	96
Instituto Bancario San Paolo	73
Monte dei Pachi di Siena	67
Banca Commerciale Italiana	62
Banco di Napoli	59
Banco di Roma	56
Cariplo	53
Credito Italiano	50
Banco di Sicilia	31
Instituto Mobiliare Italiano	23

Source: *The Banker*

2. Information Systems and Services in Banking

The Italian market for information systems related to the banking sector is dominated by IBM equipment. It is estimated that 80% of the installed base of mainframe and midrange systems is being supplied by IBM. Of the remaining 20% split among other vendors such as Bull Italia, Olivetti, Unisys and NCR, Bull is estimated to hold around 10%. However, it is expected that Bull will withdraw from the mainframe sector and concentrate on the slowly growing opportunities for open systems.

With this high penetration of IBM platforms, there is intense pressure on software and professional services companies to provide IBM expertise and/or products to run on IBM platforms.

The Italian services market has three large players in it: Finsiel (the services company owned by the state holding company, IRI), IBM and Olivetti. These companies have between 7% and 12% of the market each.

Under them comes a second level of 30-40 companies that have about 1% of the market each. This set of middle-ranking companies contains several that are owned by banks or jointly owned by a bank, an industrial company and a public sector organisation with some major or minor parts of the equity being held by the owners and managers.

The remaining 30% of the market is shared among the hundreds of small local software and service bureau companies, many of whom, reflecting the situation between the larger and the smaller banks, act as distributors and VARs for systems being delivered to or installed in local offices in Italian companies.

3. Software Products in Banking

Traditionally, software for banking systems in Italy has been delivered as a tailored system produced by a customised project, or as a customisation built around an already developed software kernel. There has, however, been a small but steadily growing trend towards the acceptance of a full software product, already constructed and ready for modification and/or paramaterisation prior to installation. This move is gathering strength but is still weak.

The companies interviewed by INPUT for this project all came from the middle band of medium-sized companies and each had a major shareholder that is a bank. The following companies were researched or visited:

- CDS
- Database Informatica
- Data Management
- Datitalia
- Engineering Ingegneria Informatica
- Finsiel
- Systems & Management

Four of the five companies selected by Cogecom for detailed research are described in detail in the interview reports contained in Appendix E. These are the four companies visited in person. The fifth, Finsiel, is described via its updated standard INPUT profile. The rest of this section is devoted to an outline description of each vendor with particular reference to its software product portfolio.

4. Data Management SpA

Exhibit III-16 summarises the key facts about Data Management. It is the largest of the indigenous software companies in terms of its software product and systems development revenues from the banking sector in Italy, with the exception of CDS (Concept Data Systems), which is more specialised in its offerings, being primarily active in the pension plan administration sector.

EXHIBIT III-16

Key Vendor Parameters—Data Management SpA

Name: Data Management **Founded:** 1970

Ownership:
48% - Finsiel
39% - Credito Italiano
10% - Bull
3% - IRI

Revs. (1990) - $M
- **Total Europe:** 56M
- **B & F Europe:** 30M

Markets Position:
One of the indigenous Italian service companies. Including work for its banking shareholder, it does most in the B&F sector of any similar vendor.

Banking Sector Activity:

• Retail banking products	$7 - 10 M
• Wholesale banking	6 - 8 M
• Processing (including FM and DRS)	2 - 3 M

Data Management has a portfolio of about 10 fully productised systems in the wholesale and retail banking sectors, of which the four most important are analysed in the interview report (Appendix C).

- PUMA 2 - Electronic funds transfer interface (see Exhibit III-17)
- ARCA - Branch distributed banking using PCs and workstations
- FIST - Kapiti's tailorable front-office information integration system
- SYGEPA - Interbank and corporate-to-bank communications

EXHIBIT III-17

Product Profile—PUMA 2

Name: PUMA 2

Launched: Mid-1980s

Functions: EFT interface product implementing communications standards laid down by ABI/Bank of Italy

Platforms: IBM environment

Target Markets:
- Banks
- Savings Banks
- Finance Houses

Est. No. installed:
110 contracts including 80 banks

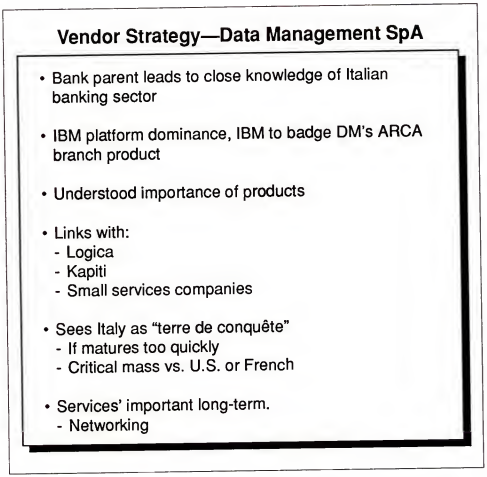
Clients:
- Many major banks
- Community of smaller banks

Price range:
Approximately $350K

Competitors:
Is up against 2 other consortia:
- Trend/Eurosystem (90 clients)
- IPACRI/Sipe (110 clients)

The company is also active in running processing services, facilities management and back-up centres for its customers, including its banking shareholder, the Credito Italiano. Exhibit III-18 lists some of the major planks in the company's survival strategy.

EXHIBIT III-18



The management is realistic about the prospect of acquisitions and mergers occurring in the market. Just as the banks are set to consolidate, so are the companies serving them; one estimate says that the 700 companies active in financial services software will be reduced to around 300 by 1995. From the Data Management standpoint there is interest in watching for large foreign computer services companies, particularly those from France or the U.S., acquiring one or more of the middle-ranking companies.

The company is hoping to internationalise its revenue stream through association with IBM, which, it claims, has expressed interest in badging the ARCA software for resale overseas. The modular design and the flexibility of ARCA's language capability are planned to allow for easy porting across national boundaries and into other banking environments.

The medium- to long-term aim is to increase the processing and network services revenues through more facilities management and disaster recovery contracts. This presupposes, in the company's eyes, major improvements in Italy's network infrastructure.

5. Datitalia SpA

Datitalia is another of the medium-sized Italian software companies and is the largest of its kind operating out of Naples. It has considerably less involvement in packaged or productised software than Data Management. Nevertheless it is strongly involved in the banking sector which accounts for around 50% of its revenues. Since it is 70% owned by the regional Banco di Napoli, a significant percentage of this revenue is considered as captive. Exhibit III-19 summarises the key aspects of this company.

EXHIBIT III-19

Key Vendor Parameters—Datitalia Processing SpA

Name: Datitalia Processing SpA

Founded: 1970

Ownership:
70% - Banco di Napioli
30% - Olivetti

Revs. (1990) - $M
- **Total Europe:** 39
- **B & F Europe:** 19

Markets Position:
Largest independent services company in the Naples area
- Markets a database of names of financial defaulters throughout Italy, which is estimated to have made 3,000 sales

Banking Sector Activity:
- Just under 50% of revenues
- 3 products - 2 associated with defaulter databases
  - 1 PC-based back-office reporting
- Otherwise, project-orientated

The company markets two products that are targeted at the banking area:

- Sara is a software product designed for information retrieval from a specific in-house database called Amadeo. This database, constructed and maintained by Datitalia, contains the names of persons whose credit-worthiness is doubtful due to past involvement in fraud, defaulting on loans, etc. The database and the Sara software are used by 3,000 banks. It can be accessed on magnetic tape or via Videotel, the national videotex service,

- Reporting Direzionale is a PC-based tool for management information synthesis in banks. It is parameter driven to allow for selective extraction and collating of information from a number of off-line sources (i.e., filing and database systems in a bank's information processing facility) and the production of high level reports. So far, four sales have been made. The product costs $30,000.

Datitalia's interview report also contains descriptions of three major project areas in which the company thinks it could have the basis of further contracts:

- Foreign Business Transaction by teleprocessing,
- Management of Stock Exchange and Financial Instruments Trades,
- Cashier Terminal Software.

The company seems content to remain project-orientated. Rather like some of the Spanish software companies visited, Datitalia sees its service offering (consisting of a strong banking systems capability) as being its natural product family. It does not perceive a need to productise its offering further.

6. Engineering Ingegneria Informatica SpA

Now known for short as Engineering, this medium-sized software and professional services company operates out of Rome, but has production centres in the main cities of Northern Italy, Tuscany and Sicily. It is another of the middle-range software and services companies. A set of companies that it manages belongs to the Engineering group as well as the parent holding company itself. It also has minority investments in a number of affiliated companies in the information services business.

The majority of its revenues (54% in 1990) is gained from the financial sector with some of the top ten banks and the Bank of Italy numbered among its customers. Along with most of the medium-sized Italian services companies, Engineering also runs a data centre, although it only collects some 3% of its revenues from processing services, facilities management or machine back-up services. Eighty-five percent of its revenues comes (in a roughly 50 : 50 split) from the fee-related activities of contract hire of staff and custom projects. The remaining revenue is split between consultancy (10%) and packages (2%). The few packages marketed are CASE tools, which it also uses itself for the development of software. There are effectively no full products for the banking sector although it has developed system kernels on the back of certain securities projects. Exhibit III-20 presents the key parameters for this company.

EXHIBIT III-20

Key Vendor Parameters—Engineering

Name: Engineering

Founded: 1980

Ownership:
60% - Management
} IBM
40% } Paribas
} Italmobiliare
} etc.

Revs. (1990)
- **Total Europe:** $30M
- **B & F Europe:** $16M

Markets Position:
One of Italy's indigenous, medium-sized, and medium-ranking software services companies

Banking Sector Activity:
- Over 50% revenues earned from financial services sector
- Effectively no specific banking sector products

Note that IBM has an 11% stake in the company and is the largest outside shareholder. The company retains control over its own destiny in that 60% of the equity is held by senior managers and directors.

The main thrust of the company's future strategy is to try to move away from the 'bodyshopping' of its 450 odd staff onto more lucrative project and consulting work. A new consultancy group has been formed to undertake assignments at different levels:

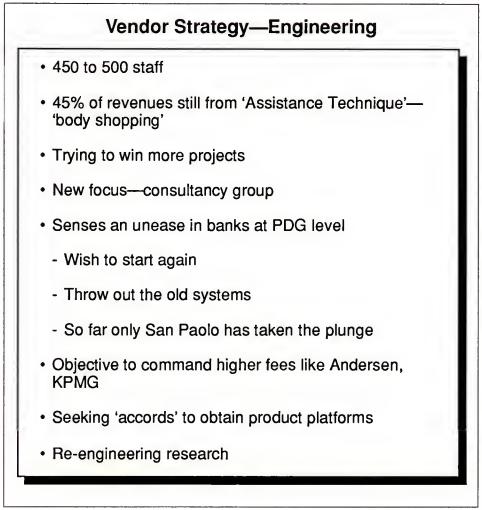
- Organisational and management consulting
- System design consulting
- System development and methodology consultancy

A re-engineering development project is underway to try to combine a number of strengths in the company's expertise:

- Marketing of CASE tools
- The in-house development methodology METHIS
- The market need for software maintenance to be made both economic and reliable

Exhibit III-21 summarises Engineering's view of its future.

EXHIBIT III-21



7. Finsiel

Finsiel is represented by its standard updated INPUT profile which appears in place with the other interview reports from Italy in Appendix C.

Finsiel operates through a large number of group subsidiaries, some of which it manages even when it does not have a direct or full majority holding. In many cases it shares ownership either with its own parent, IRI, or with other companies in its own group or with external shareholders, which may themselves be state-owned companies.

Finsiel's two main areas of activity are:

- Processing services (including some network services). This is the company's historically significant activity, although now equal to it in importance is the second area,
- Professional services. Finsiel has, in common with many long-established computer services firms, made strenuous efforts during the last decade to increase this activity area in which many future opportunities appear to lie in Italy as elsewhere. The company has strengths in advanced software techniques such as in graphics for industrial applications.

The software products component of its business is still of the order of 1%. INPUT expects this to grow.

Banking and financial applications account for under 10% of Finsiel revenues and this work is split across the company's two principal delivery modes.

In summary, Finsiel is a leading group in the Western European services market and is investing heavily in:

- Acquisitions at home
- Marketing ventures outside its domestic market
- R&D (over 15% of revenues) and training

Its activity in the banking sector is of the same order of magnitude in revenue terms as the other smaller Italian firms analysed, if not a little larger. Some of this revenue is captive—i.e., performed for its minority shareholder, the Bank of Italy (which has a 16.7% stake in Finsiel). There are no indications of a strong thrust to productise from this work; instead, the objective seems to be to develop methodologies and tools for speeding up the development cycle.

8. Systems & Management SpA

Systems & Management is the parent company of a privately owned group, which employs over 1,000 staff and earns almost $100 million in annual revenues. Roughly one quarter of these staff and one-quarter of the revenues are earned by the parent, Systems & Management company, which specialises in banking systems to the tune of 47% of its 1989 revenues.

The S&M Group has a history of affiliation, acquisition and joint venture structuring in order to form a strong professional services company capable of undertaking large complex projects.

The S&M Group was officially established at the beginning of 1989 through a number of takeovers performed by Systems & Management. With its 1,000 employees and 128-billion-lire turnover, it is now the largest software group in Italy, which is both private and independent, i.e., not controlled by any hardware manufacturer. The group is currently made up of 16 companies (including subsidiaries, affiliated companies, and consortia) operating all over Italy through offices in:

- Turin, Milan, Treviso, Modena, Reggio Emilia, Pisa, Rome, Naples, Cosenza, and Palermo.

A complex corporate framework has been developed in less than 10 years by Systems & Management, which was founded in Turin 1978 by a group of friends, managers, information systems experts and opinion leaders of the academic world. They aimed at creating an "independent" company able to provide a vast array of information technology services, a true software "factory," closely connected to national and international research centres.

Systems & Management has succeeded over a few years in becoming an established and innovative company, capable of providing software products, technological integration, and highly qualified management advice, but also in extending its sphere of activity through a considerable network of integrated companies. Started in 1978 with a registered stock of 200 million lire, by 1979, Systems & Management had reached a turnover of 2 billion lire. Initial development was based on the establishment of peripheral offices—the Milan, Modena, and Pisa offices were set up. After 1982, however, there was a shift to the current twofold approach: the establishment of partnerships with local companies that had national and international scope, and specialisation by business areas. In 1982, Systems & Management purchased from BNL (Banco Nazionale de Lavoro) the equity of Rome-based Sipe Optimation, thus starting that company's conversion from an EDP centre to an advanced software company. In 1983, together with Benetton, it founded Nolan Norton

Italia, associated with U.S.-based Nolan Norton, a leader in the field of information technology strategies. System & Management purchased equities of Pisa-based List in 1985, of Treviso-based In-System and Naples-based S&T in 1987, and then of Palermo-based Bastinel in 1988. In 1988, Systems & Management took over Eurobit, owned by the German group Mannesmann (in 1986 it had already acquired an interest in the firm), thus starting a full strategic conversion to integrate Eurobit into the new S&M Group.

Systems & Management—as well as its subsidiaries and affiliated companies—has also established close connections with national and international research centres.

In 1980, S&M created its Research & Development Centre in Pisa in collaboration of some teachers from the School of Information Science. In 1984 the company took part, as a main contractor, in the Esprit research project, sponsored by the EEC, for the creation of environments designed for the development of expert systems. In 1980 Systems & Management established a link with AT&T and adopted UNIX, an environment for software development and production. In fact, Systems & Management was the first Italian company to market UNIX in Italy.

The Italian partners of the S&M Group include three of the major banks: Banca Nazionale del Lavoro, Banco di Sicilia, Credito Romagnolo, as well as one of Italy's largest manufacturers: Benetton. Among its international partners it can claim Bull, Apple, and Nolan Norton.

Systems & Management profits have not been distributed; they have always been reinvested by the owners. In 1988, the registered stock was brought up to 2.5 billion lire and in 1989 it grew again to 3 billion lire. The company is also planning to further increase its capital in the short term. "This time, however"—according to the founder, Vinienzo Monaci—"we are aiming at foreign markets. This doesn't mean that we want to sell equity, but rather that we want to increase our capital with the help of international partners. We shall initially be looking at Spain and France, two leading European countries in the field of software applications."

At the end of 1989, in order to speed up the implementation of this project, Basinvest in Spain became part of the S&M Group.

On February 1, 1990, a new group structure came into effect based on strategic business areas—each including a number of strategic business units—supported by the four management offices at group level:

- Administration and Finance Management
- Planning and Strategies Management
- Organisation and Human Resources Management
- Image and Communication Management

On October 9, 1990, Sipe Optimation, one of the S&M Group subsidiaries, and three other of the important Italian software companies—Data Base Informatica, Engineering and Sopin—set up the CIPI Consortium, a Consortium for Public Information Systems, whose objective is to offer integrated solutions to the public administration (in Italy). This Consortium is one of the largest European groups operating in the industry. The four companies it is made up of employ about 3,000 highly trained people, most of them graduates. The group's estimated turnover for 1990 stands at around 400 billion lire. For the first year, Mr. Vincenzo Monaci, who is also Managing Director of Sipe Optimation, will be the Chairman of this Consortium.

The banking and finance division of the main company has produced and is now marketing 13 software products, which are described in some detail in the company's interview report. Exhibit III-22 summarises the key facts about this creative and dynamic young group, whose founder has in 10 years steered it into being one of Italy's best professional services companies—along the way acquiring a company, Sipe Optimation, which was older and larger than itself and is now three years later becoming fully integrated into the group.

EXHIBIT III-22

Key Vendor Parameters
Systems & Managment Group

Name: Systems & Management Group

Founded: 1978
1988 acquired majority of Sipe Optimation—became a group

Ownership:
Private

Revs. (1990) - $M
- **Total Europe:** 24
- **B & F Europe:** 11

Market Position:
- Largest of Italy's independent systems companies - At group level (>1,200 staff)
- Promoter of cooperative projects as defence against outsiders

Banking Sector Activity:
- 47% of revenues in 'maison mère' are in B&F
- Has 13 application products based on large IBM mainframes, some Bull

C

Spain

1. Status of Banking

Spanish banking has come under pressure from two directions:

- The need to expand and diversify in order to catch up with the rest of Europe in terms of services
- The current recessionary climate in the world economy

As the country prepares for the single European market in financial services, margins on core lending activities are being eroded, and rising debt levels have been hitting profitability. Banks are therefore being forced to look at ways of making their extremely dense branch networks more efficient.

In 1990 total net profits, as a percentage of total assets, fell from 1.54% to 1.52%, having increased from 1.4% in 1988, according to figures produced by the Associacion Bancaria. Traditionally, Spanish banks have been very profitable because they have been able to secure cheap deposit bases and lend at relatively expensive rates. This lending margin was equal to 4.4% of total bank assets in 1989—the highest rate in the EC outside Portugal and Greece.

Earlier this year, a survey listed two Spanish banks that specialise in retail business, Banco Popular and Banco Santander, among the five most profitable banks in the world.

Although Spain should avoid a recession (the government still expects economic growth of around 3% in 1991), the number of bad debts is rising. Last year, profitability was also adversely affected by competition, especially over interest-bearing current accounts.

Barclays Bank's Spanish subsidiary initiated a period of increased competition as long ago as 1986, but the war of "superaccounts," or *guerra de supercuentas,* really started in earnest in September 1989, when Banco Santander (Santander) increased the rates on its standard current account. Santander launched a nationwide advertising campaign—modelled on Barclays' own approach—to drive the fact home.

Several of Santander's leading competitors eventually followed suit, but the gradual decline in interest rates over the past year has reduced the room for manoeuvre available to banks.

The results of this competition have been quick in coming. The decision by Banco Central and Banco Hispano Americano to merge earlier this year is, in part at least, a response to their belief that they need to be

bigger in order to be able to spread their business beyond traditional retail boundaries. That realisation was underlined by a government decision to merge all the public banks into the biggest bank in the country, led by Banco Exterior, which, the authorities said, would "act belligerently in the markets."

Nevertheless, Santander has emerged as the clear winner, increasing its market share among the so-called big seven Spanish banks by 1.7% between December 1989 and September 1990. Santander's private sector deposits rose by 21% over this period. Exhibit III-23 lists Spain's top 10 banks.

EXHIBIT III-23

Top Banks in Spain

Banks	Assets ($ Millions)
Banco Bilbao Vizaya	56
Banco Central	46
Banco Hispano Americano	30
Banco Hispañol de Credito	30
Banco Santander	26
Banco Exterior de España	23
Caja de Pensiones "La Caixa"	22
Banco Popular Español	16
Caja de Ahorros de Madrid	13
Caja de Ahorros de Barcelona	7

Source: *The Banker*

At the beginning of April 1991, Santander announced a cut in its mortgage lending rates, indicating to some observers that the competition might switch to that front.

However, that seems unlikely. Bank lending for personal loans has increased in the past two to three years, but loans to individuals still account for less than 30% of outstanding bank assets. In addition, the mortgage market is still heavily dominated by savings banks such as the Caja de Madrid and the Caixa and the state-run Instituto Hipotecario Oficial.

Instead, competition is likely to focus on other areas. Banks will attempt to increase the sales of non-financial products, such as life insurance. Already, alliances between banks and insurers have been mushrooming, with banks receiving commissions for policies sold through their branches.

Santander has developed relationships with the U.S. insurance company, Metropolitan Life, with which it has formed a joint venture.

The bank believes that it is relatively easy for bank staff to sell life products that have a financial component such as many savings-orientated contracts.

Banks are also likely to seek to reduce their overheads. Figures produced by the Associacion Bancaria show Spain to be one of the most heavily banked countries in the European Community. Average expenses are higher than in every European country—apart from Ireland and the U.K. (both of which compensate by lending more profitably and by selling other non-financial services) and Portugal.

Traditionally, Spaniards have tended to bank with those branches closest to their homes, and convenience has been an important element in influencing which institution customers choose to bank with. Spain has more banks per inhabitant than any EEC country, apart from Luxembourg, and on average the country's over 16,000 branches make loans of only $7.1 million—less than half the amounts loaned by Italian banks, and considerably lower than any other country except Greece.

Bankers believe this pattern will change as Spain becomes a more urbanised society, and customers begin to make more use of mechanised cash points. Many more banks will rationalise their operations. Smaller but better qualified staffs, backed up by data-processing systems and less centralised decision-making will be necessary.

Santander has around 1,000 branches, compared with the 2,000 to 3,000 branches each operated by BBV, Banesto and Banco Central, so it is under less pressure to cut down on its network.

In the short term, banks will seek to sell off subsidiary networks. Last year, for example, Banco Santander sold its Banco Commercial Espanol branch network to Crédit Lyonnais. This year, Banco Santander sold another of its subsidiaries, Banco Jover of Catolonia, to Crédit Lyonnais. Banesto is to sell its Catalan unit, Banc Catala de Credit to Istituto Bancario San Paolo di Torino of Italy. This rationalisation will go on for two to three years at a rapid pace before starting to settle down by 1995.

2. Information Systems and Services in Banking

The Spanish market for systems is less dominated by IBM in the Banking and Finance sector than any of the other three countries researched for this project. Being less mature than the other major countries in terms of the use of data processing, it has allowed Digital equipment to obtain a strong foothold. Moreover, the potential for UNIX and open systems networks is greater because of the weaker position of entrenched proprietary systems.

The services market also affords opportunities to improve the infrastructure technology supporting computer services because of the lower penetration of the service approaches already current in the large northern countries of Western Europe:

- In Spain, processing services are still strong and accepted as a delivery mode for services to financial institutions. Two of the four vendors interviewed face-to-face concentrated on this delivery mode, with application products firmly embedded in the service marketed and not used per se as part of the brand image of the service line.

- In-house software developments are supplemented by professional services obtained from external vendors, but these are normally set to work, often on the user site under user-management control, to provide tailored software suites to implement the banking and securities houses' applications. These applications are regarded as user-specific or certainly industry-specific; the use of readily-built package products is still only found in a minority of cases. The other two firms visited were both concentrating on providing professional services with high calibre staff:

  - The first is a small software house that is starting to realise the product potential of the projects it has already undertaken,

  - The second has just been formed from a merger and acquisition phase, which has propelled it into being Spain's largest indigenous systems company. It is concentrating its initial marketing thrusts in the areas of large systems integration (SI) contracts and consultancy assignments, hoping to leverage its large pool of expertise in both directions.

All vendors concurred in seeing a continuing strong demand for computing services, coupled with a lack of skilled and trained staff.

3. Software Products in Banking

INPUT researched seven companies in Spain. Of the original five selected by our client, one could not be located in time, (INPUT presumes it has been acquired), one was found to have been acquired and merged with the company substituted for the missing one, and the remaining three were visited. The companies referred to are:

- Ceninsa (now part of Eritel)
- Cibernos
- EnWare
- Eritel (formed from Entel and Eria, which acquired Ceninsa)
- ICS (not located)
- Teleinformatica
- Ibermatica (an affiliate of Eritel that was used as a possible substitute).

The four of those which were visited are written up in detail in Appendix D.

4. Cibernos SA

Cibernos has been in existence for almost 25 years and specialises (55% of its revenues) in serving Spain's financial institutions. It has an extensive network of service bureaux in the major cities connected via a network based on IBERPAC, the Spanish packet-switch service. Of its 600 staff, 450 are working with the bureau network, which includes specialist functions such as cheque-reading, sorting and clearing. INPUT estimates that 250 staff are dedicated to the range of services marketed to banks. These services, besides processing and network services, include consulting, training and system development.

Exhibit III-24 summarises the main features of this vendor. INPUT found that there were no software products marketed as such to the banking community, although there were indications that this could be about to change. There is a strong component of PC distribution together with software, but this is not specific to banking.

EXHIBIT III-24

Key Vendor Parameters—Cibernos SA

Name: Cibernos SA **Founded:** 1966

Ownership: Private **Revs. (1990) - $M**
- **Total Europe:** 25
- **B & F Europe:** 14

Market Position:
- Age of company determines its strong presence in processing and network services (450 staff)
- Recent moves to more comprehensive offerings

Banking Sector Activity:
- 55% of revenues in B&F
- Majority activity running cheque-reading, sorting, clearing centre for Spanish banking community (claim 85% of potential clients)
- No major software products visible

5. EnWare SA

This fairly new (1987 foundation) company has grown to a size of almost 80 in the four years of its life so far. Its considerable expertise has been enhanced by working closely with the Spanish Stock Exchange consortium (covering the four exchanges located in Madrid, Barcelona, Sevilla and Valencia). EnWare has been instrumental in working with both information delivery and trading systems. Exhibit III-25 shows the basic data on the firm.

It is now productising some of the trading system code in which it has the rights, (in order to be able to offer products based on customisable but reusable kernels) to a wide range of banks and brokers. Exhibit III-26 summarises the emerging product that is now under test.

EXHIBIT III-25

Key Vendor Parameters—EnWare SA

Name: EnWare SA

Founded: 1987

Ownership: Private

Revs. (1990) - $M
- **Total Europe:** 3.5
- **B & F Europe:** 1.2 (growing at 50+% p.a.)

Market Position:
Small, young, fast-growing software company with some prestigious contracts to its name, e.g., Bolsa & CATS.

Banking Sector Activity:
- Currently about 1/3 of revenues
- Project-orientated but recognises future value of products
- In course of productising workstation version of CATS—front-office trading—as ENWTRADE

EXHIBIT III-26

Product Profile—ENWTRADE

Name: ENWTRADE

Launched: Test (Sept. '91)

Functions:
Dealer trading with the stock exchange

Platforms:
UNIX
(VMS planned)

Target Markets: Banks, Brokers

Est. No. installed: nil

Potential market:
Up to 30 banks
160 brokers

Price range: To be decided; likely to be individually priced

Competitors:
The overseas products such as FIST (Kapiti)

This company is typical of the buoyant entrepreneurial spirit encountered in the Spanish computer services industry today.

6. Eritel SA

Eritel claims to be the largest of the Spanish-owned computing services vendors since its formation this year. It is owned by the State through the INI holding company (which is also the parent of firms such as Iberia, the Spanish airline) and Telefonica, the public telecommunications operator (PTO),

When visited, the company was still in the throes of restructuring its business whose components were:

- Entel, originally owned by Telefonica, which specialised in custom-development of large telecommunications-related services,
- Eria Estudios, which was jointly owned by INI and a group of banks, and specialised in commercial systems of all types with professional services its main delivery mode,
- Ceninsa, a financial services orientated service bureau company which had been acquired by Eria.

Entel is the major partner in the alliance of strengths that has been put together with encouragement from INI. The main future thrusts will be towards large systems integration contracts (especially those which the upgrade of Telefonica's network are going to require) and consultancy. The future role of the commercial computing applications expertise is not clear and might even be susceptible to divestment in some form.

Exhibit III-27 gives the main details on the new Eritel vendor.

EXHIBIT III-27

Key Vendor Parameters—Eritel

Name: Eritel
Fusion of Entel
Eria
Ceninsa

Founded: 1991
- 1971
- 1973
- 1976
(2,000 staff)

Ownership:- Spanish State through INI, Inisel and Telefonica

Rev. (1990) $M
- **Total Europe:** 140
- **B & F Europe:** 20 est

Market Position:
Deliberate establishment of largest indigenous computer services company to undertake SI and consultancy

Banking Sector Activity:
- 15-20% level in revenue terms
- Entel—public administration orientation
- Eria and Ceninsa—main centres of business services
- Low product visibility

7. Teleinformatica

This small firm (of under 80 staff) is well-established in its current information services niche as the Spanish distributor of the GEIS network services. These services are not growing as fast as professional services (i.e., 15% per annum as opposed to the 25%-plus growth rates for the latter). Consequently, Teleinformatica has in recent years lessened its dependence on the revenues of its distributorship by diversifying into micro distributorship, including hardware and software. There is some reasonable degree of overlap between its new and its older activities in that banks are investing heavily in equipment at the PC level and this is in terms of orders consisting of 30 or more machines in a network or for use as desktop terminals to mainframe services.

The company is also strong in the new networking applications such as EDI, EFTPOS and E-mail. There is no evidence of it wanting to productise from its existing core services except within the context of a processing or network service. Customisation of GEIS products for individual customers is again a significant portion of its business.

The involvement in the B&F sector is to the tune of $3.5 million per annum. This represents 45% of its network services revenues. Exhibits III-28 and III-29 summarise the important details and policies of this vendor.

EXHIBIT III-28

Key Vendor Parameters—Teleinformatica

Name: Teleinformatica **Founded:** 1980 (70+ staff)

Ownership: BBV (Banco Bilbao Vizcaya) 100%
- Spanish distributor for GEIS

Revs. (1990) - $M
- **Total Europe:** 26.0
- **B & F Europe:** 3.5

Market Position:
- Leading network services provider in Spain
- 70% of revenues from sale of PCs and PC software

Banking Sector Activity:
- Accounts for around 45% of their network services revenues
- GEIS service 'products': Cash Management, EFT, Treasury, Global Custody, etc.

EXHIBIT III-29

Vendor Strategy—Teleinformatica

- Growth in Spanish services consistently high
- Balanced by 'Microinformatique'
  - To avoid 'single product' syndrome
- Cash management/funds transfer for 8 Spanish banks—links to 2,000 bank customers (3,000 by end of 1991)
- Nurturing existing clients
  - Very sales orientated
- Current uncertain climate in Spanish banking
- Customisation/modification fairly common
- In many ways better placed than a product house

D

U.K.

1. Status of Banking

Of the major European economies, the U.K. has suffered hardest from the current recession. The impact has been very hard on the banking sector as illustrated in the following excerpts from the 1990 results of the major U.K. clearing banks.

"Business conditions for banks have probably been the worst in recent history, and they are unlikely to improve in the immediate future." This was the message from the chief executive of the Royal Bank of Scotland, when he reported a 58% fall in interim profits earlier in 1991.

The recession has had a devastating effect on banks. Bad debts have soared, new business has slumped, and with it the industry's earning power. The chairman of Barclays, the largest clearing bank, has gone on record as saying that conditions were the worst he had seen in his 38-year career.

Although the Big Four clearing banks produced better results in 1990 than in 1989, this was only because the previous year's bottom line was depressed by heavy provisioning against Third World debt. At the operating level, all the big U.K. banks saw sharp declines in 1990. Their bad debt charges totalled a record £3.7 billion ($6.2 billion).

These severe conditions have produced their particular casualties. One of them was the Midland Bank's proposed merger with the Hong Kong and Shanghai Bank, which had to be shelved because neither bank was robust enough to proceed. Five banks, the largest of them British & Commonwealth Merchant Bank, were also forced into administration—the first bad spate of bank failures in a decade.

This year, few bankers see an early end to it all. The chairman of NatWest told shareholders not to expect any improvements in the first half of 1991, and this was confirmed when the half-year results were announced in August. Because the peak in bad debts tends to lag behind the recovery, the latter part of this year could still bring further heavy losses.

The more enduring impact of the recession will be to speed up the shake-out in the banking industry. All the big clearing banks have now embarked on major cost-cutting measures, which will involve the loss of more than 30,000 jobs and several hundred branches over the next two or three years. In some cases, as with Lloyds, this also involves a retreat from specific markets overseas, usually those on the periphery of the business.

The biggest structural question hanging over the clearing bank sector is the future of the Midland now that the Hong Kong and Shanghai merger is off. Although there has been much speculation about a possible take-over of Midland, it is hard to identify a credible candidate. The new chairman is now engaged upon a strategy review, but he is expected to fight to keep Midland independent.

The merchant banking sector has been hard hit. Profits have been down at leading names such as Schroders, Kleinworts, Warburg, Barings and Morgan Grenfell, with the causes mainly last year's depressed investment and corporate finance markets. An exception was Hambros, whose more focussed approach enabled it to report an 18% increase.

A notable disaster was Guiness Mahon which cost £35 million on bad debts. This was significant because the group was acquired only two years ago by the Bank of Yokahoma in what was seen as a ground-breaking move by a Japanese bank into U.K. merchant banking—but now one which others will be in no hurry to follow.

The recession has not helped the image of the banking industry. Accusations of banks "pulling the plug" on hard-pressed customers abound. But the banks have taken steps to meet a worsening market. They have re-opened the intensive care units with which they nursed corporate casualties through the last recession. In a few isolated cases they have even converted loans into equity, though they stress that this is not a trend that they wish to encourage.

The banks' position has not been helped by the widespread view that banks contributed to the present recession through excessive lending in the 1980s—a charge that they naturally deny. Nonetheless, they are trying to complete a new Code of Conduct to head off the threat of tougher legislative controls on their activities.

But not all bankers take the gloomy view. The Bank of Scotland, long considered one of the best-managed U.K. banks, has announced a £200 million rights issue because it wants to take advantage of what it considers to be excellent prospects in the U.K. The group chief executive points out that the problems besetting many banks are helping to reduce competition and improve the profitability of the banking market. So any bank that can enlarge its market share should be well-placed. "Our whole delivery system is geared to winning market share," he says. "In future this business will have much higher margins."

Exhibit III-30 shows the published pre-tax profits of the top six retail banks.

EXHIBIT III-30

U.K. Clearing Bank Results

Bank	£ Millions Pre-tax Profit		
	1989	1990	Percent Change
Abbey National	501	582	16
Barclays	692	760	10
Lloyds	(715)	591	-
Midland	(261)	11	-
NatWest	404	504	25
TSB	155	312	101

Source: Company figures

2. Information Systems and Services in Banking

The U.K. banking sector is heavily skewed towards wholesale and international banking due to the presence of the world's largest financial services centre in the City of London. Current estimates give a figure of over 1,000 financial institutions in the city, of which 550 are foreign banks and another 110 are U.K.-owned banks.

This population of enterprises had led to a highly polarised market for systems platforms:

- The few large U.K. banking groups have become heavy users of IBM mainframes. With one or two significant exceptions that opt for Unisys as a supplier, IBM is the main equipment supplier.

- IBM midrange systems dominate the wholesale banking sector, although Digital also has a significant number of sites to its credit in this sector. Smaller hardware vendors may be present in the branches of international banks due to purchasing policies set in their home countries.

The growth of securities and other trading systems markets during the 1980s has been based around real-time dealing room systems and other dedicated sets of equipment that have required and encouraged the supply of modular minicomputer-based applications products. The primary example of this group of products is the Midas family of products from the BIS Banking Systems division. It is described later in this section.

There remains in the U.K. financial services sector a significant percentage of modern computer installations that uses a mixture of externally hired professional services and in-house produced tailored software. For even the most commonly used software products there is a customisation factor that usually amounts to at least 40% of total implementation cost. It is only at the micro end of the market that the software is implemented without modification.

The use of software products is well entrenched in the midrange-based wholesale and international banking sectors. It is less well proven in the mainframe area, but there, therefore, exists an opportunity for software product vendors when systems come up for rewrite and conversion towards having more customer-orientated system designs.

3. BIS Banking Systems

BIS is the market leader in the midrange banking systems sector. It is now part of the NYNEX group (the New York Baby Bell) having been acquired in 1987. Its flagship product, Midas ABS, has been developed, maintained and enhanced in-house over more than a decade. It now consists of over 90 modules and can be configured and parameterised to handle an immensely wide range of banking and securities applications.

Exhibits III-31 to III-37 summarise the company, its major products and its likely strategic challenges:

- Exhibit III-31 summarises key company parameters,
- Exhibit III-32 to III-36 contain the synopsis of the products, both the in-house produced products—Midas and Fundmaster—and the more recently acquired products—DR-One, Retail-Plus, Leo,
- Exhibit III-37 lists the main points of company strategy.

EXHIBIT III-31

Key Vendor Parameters—BIS Banking

Name: BIS Banking

Founded: 1975

Ownership:
NYNEX
within BIS Group

Revs. (1990) - $M
- **Total Europe:** 100 est.
- **B & F Europe:** 55 est.

Market Position:
Leading international banking systems company, with approximately 800 sites.

Banking Sector Activity:
International, wholesale and retail banking

Midas family of products based on IBM midrange is world leader in its class.

EXHIBIT III-32

Product Profile—Midas ABS

Name: Midas ABS

Launched: 1979

Functions: All back-office for wholesale/retail/ international banking

Platforms: IBM AS/400

Target Markets:
- Traditional banking
- New financial instruments

Est. No. installed: 700 +

Clients
- Most major banks
+ Building societies
  Corporate traders

Price range:
$100K upwards
- 90 modules

Competitors:
- Any back-office system
- All active vendors

EXHIBIT III-33

Product Profile—Fundmaster

Name: Fundmaster

Launched: 1986

Functions: Investment management
- Cash
- Portfolio
- Commissions
- Safe-Keeping

Platforms: AS/400 or as logical design

Target Markets:
- Wholesale banks
- Investment service organisations

Est. No. installed: 4

Clients: NK

Price range: $1M - $2M including up to 50% for customisation

Competitors: AGS

EXHIBIT III-34

Product Profile—DR-One

Name: DR-One

Launched: 1989

Functions: Dealing room delivery
- Open architecture
- Integration of sources

Platforms: PS/2 and Token Ring LAN

Target Markets: Dealing Rooms

Est. No. installed: < 10

Clients
- Westpac (Australia)
- 1 in Netherlands

Price range:
- $30K for 1 workstation
- Less than pro rata for more

Competitors: Reuters (Rich) Digital Micrognosis

EXHIBIT III-35

Product Profile—Retail-Plus

Name: Retail-Plus

Launched: 1988/1989 acquired

Functions: Manages customer data
- Targeting new products
- Assesses profitability
- Control reports

Platforms: AS/400 and ATM networks

Est. No. installed: Approximately 5 None in Europe

Target Markets: Banks with up to 10 branches with medium to high volumes

Clients: Outside Europe

Price range: $400K - $700K

Competitors:
- Jack Henry
- IBM

EXHIBIT III-36

Product Profile—Leo

Name: Leo

Launched: 1985 acquired

Functions: Import/export trade finance

Platforms: AS/400 in native mode

Target Markets: Any bank or finance house

Est. No. installed: 65+ 20+ in Europe

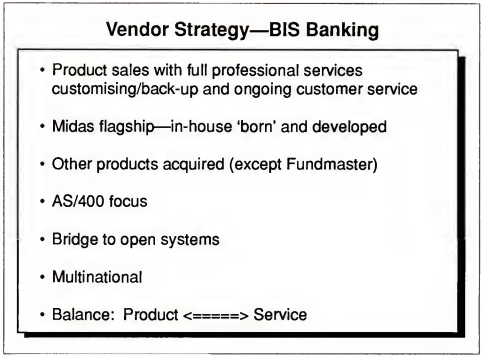
Clients: -

Price range: Estimate $200K upwards

Competitors: -

Sold in conjunction with Retail-Plus

EXHIBIT III-37



4. Financial Systems Ltd.

Financial Systems is the VAR (value-added reseller) for financial services applications for the TIS group which acquired BOS Software Ltd. in 1989. BOS was Cogecom's original selection as an interview target. The TIS group now concentrates on distributing standard open systems, but retains a number of specialist VARs for vertical market applications. INPUT was thus immediately referred from one managing director to the other. TIS is itself now a division of the £76 million Misys plc group.

The company is small ($2 million turnover estimated for 1990). It has been going for over 10 years and now has an established clientele of 60-plus site installations of which 40 are in Europe. It specialises in micro-based systems for off-shore-based banking and unit trust companies, operating out of centres such as the Channel Islands, Gibraltar, Luxembourg and the Caribbean Islands. There is a product family of three products (one of which is a replacement for the first, the original banking system).

Exhibits III-38 to III-41 outline the company and its products. There is very little to say about its marketing strategy, since at present it hardly seems to need one:

- Leads are secured by means of referrals from TIS,
- Software is distributed on floppy disks for industry standard operating systems,
- The firm has got all the business it can handle.

It is hard to avoid the thought that events could overtake this company if it does not prepare itself in good time.

EXHIBIT III-38

Key Vendor Parameters—Financial Systems Ltd.

Name: Financial Systems Ltd.

Founded: 1980

Ownership:
Private

Revs. (1990)
- **Total Europe:** $2M
- **B & F Europe:** $2M

Markets Position:
VAR of TIS (acquired BOS Software in 1989)

Banking Sector Activity:
Wholly committed to financial sector
- Specialises in off-shore business
- Clients in Gibraltar, Cayman Islands, Bahamas, etc.

EXHIBIT III-39

Product Profile—Micro Bank

Name: Micro Bank

Launched: 1980

Functions: Trust and corporate admin. & accounting. Fixed assets, ledgers, etc.—i.e., a back-office system.

Platforms: Networked or multiuser PCs under UNIX
- VAX, Risc/6000
- Uses Arcnet or Novell.

Target Markets:
Offshore banks
and trust companies

Est. No. installed:
60 - Worldwide
40 - Europe including Gibraltar

Clients: -

Price range:
$40K —> $300K
- 80% sales for bare product
- Customisation up to 50% of price

Competitors:
BIS
Winter Partners
IBIS

EXHIBIT III-40

Product Profile—Bank 2000

Name: Bank 2000

Launched: Under Beta test

Functions: Upgrade to Micro Bank
Will be installed in future, i.e., no further sales Micro Bank.

Platforms:
As for Micro Bank

Target Markets:
As for Micro Bank

Est. No. installed:-
2 sites

Clients: -

Price range:
As for Micro Bank

Competitors:
See Micro Bank

EXHIBIT III-41

Product Profile—Fund 2000

Name: Fund 2000

Launched: Under Beta test

Functions: Unit trust and off-shore accounts management

Platforms:
As for Micro Bank

Target Markets:
Offshore sector

Est. No. installed: 4

Clients: -

Price range:
As for Micro Bank

Competitors: -

5. McDonnell Douglas Information Systems International (MDISI)

In 1989, the U.S.'s airframe manufacturer, McDonnell Douglas Corporation, decided to divest itself of its information services division (MDIS), which then had worldwide revenues of $1.2 billion and was involved in manufacturing minicomputers and marketing total systems to a variety of industry sectors, chief among which was manufacturing. One of the results of that divestiture policy was that all international sales, marketing and manufacturing became concentrated on the Hemel Hempstead location in the U.K., with a view to obtaining a public quotation on the London stock market. For reasons of timing (according to the company) the flotation was postponed until a more suitable date, because of the higher importance of the sale of MDIS's Tymshare division to BT.

The U.S. operations have now mostly been sold to a variety of buyers, but the international operations (including some sales into the U.S. and Canada) have been retained as MDISI and include:

- A large U.K. component (60% of 1990 European revenues)
- Revenues in France (15%) and the rest of Western Europe (25%)
- Revenues from all other non-U.S. activities

In 1990 revenues for MDISI were reported as $442 million, of which $341 million was in Western Europe and $220 million in the U.K. Important industry sectors are (in order of revenue):

- Manufacturing
- Government
- Health
- Banking and Finance

The B&F sector accounts for 8% of MDISI's overall revenues but this percentage rises to 60% or more in France, which accounts for $25 million of the European $30 million total. The principal banking product in the U.K. is the IBS wholesale banking package, which is described in the company profile in Appendix D along with the other banking products.

Exhibit III-42 summarises the key parameters of this vendor.

EXHIBIT III-42

Key Vendor Parameters—McDonnell Douglas

Name: McDonnell Douglas Information Systems Int'l **Founded:** 1990

Ownership:
McDonnell Douglas Corporation

Revs. (1990) - $M
- **Total Europe:** 341
- **B & F Europe:** 30

Market Position:
International arm of McDonnell Douglas Corp.'s IS company, marketing systems outside U.S.

Banking Sector Activity:
- 8% of revenues throughout Europe
- IBS an important banking product

6. SD-Scicon plc

SD-Scicon is one of the foremost computing services companies in Europe with a wide range of application interests, especially in the areas of defence, energy and industrial systems. It was formed in 1988 when SD (Systems Designers plc) acquired Scicon Limited, which was a subsidiary of BP (British Petroleum).

Neither company was well-known for its commercial systems development, and this weakness on the part of the combined group has proved one of the factors contributing to the current revenue difficulties caused by the deep U.K. recession and individual project losses. The company has just been acquired in a hostile takeover from EDS, the $3 billion computing services wing of the General Motors Corporation. This bid followed another earlier one from the little-known Cray Electronics group (no connection with the Cray Research Corporation).

SD-Scicon's products in the B&F sector in the U.K. are in two areas:

- Communications products principally to support EFT and EDI operations,

- A new interface product to enable users of the London Stock Exchange's Taurus system to migrate to this soon-to-be launched settlement system from their existing application systems and without needing to rewrite these existing systems immediately.

Exhibits III-43 to III-47 summarise the SD-Scicon position in the U.K. B&F sector:

- Exhibit III-43 gives the key company parameters,
- Exhibit III-44 to III-46 summarise the three key products,
- Exhibit III-47 gives a synopsis of the company's strategic concerns.

EXHIBIT III-43

Key Vendor Parameters—SD-Scicon plc

Name: SD-Scicon plc

Founded: 1988

Ownership:
Publicly quoted company

Revs. (1990)
- **Total Europe:** $390M
- **B & F Europe:** $58M

Markets Position:
Leading European systems house, which has suffered losses in recent years in certain operations.

Banking Sector Activity:
Not the company's top revenue earner but important

- U.K. and French operations diverse—lack focus since post-'Black Monday' retrenchment
- 250 staff out of 4,000 (falling) working in the B&F sector

EXHIBIT III-44

Product Profile—Connex

Name: Connex

Launched: 1981 by Deluxe Data Systems Inc.

Functions: EFTPOS functionality including linkage for ATMS and POS terminals into a central EFT facility

Platforms: IBM mainframe
Tandem

Target Markets:
EFT communities

Est. No. installed: < 10

Clients: In U.K. and Italy

Price range:
$100K - $300K est.

Competitors: -

Sold under licence throughout Europe.

EXHIBIT III-45

Product Profile—Connex Asset

Name: Connex Asset

Launched: 1990
also Deluxe

Functions:
Credit/debit card management

Platforms:
As for Connex

Target Markets:
As for Connex

Est. No. installed:
None so far

Clients: -

Price range:
Similar to Connex

Competitors: -

EXHIBIT III-46

Product Profile—Taurus-Link

Name: Taurus-Link

Launched: 1990

Functions:
Interfaces existing customer systems to the new Taurus System of the ISE

Platforms:
PC in Oracle and C

Target Markets:
Banks, brokers and equity traders

Est. No. Installed:-
Looking for commitments

Clients: -

Price range:
$20K - $165K plus
15% pa maintenance

Competitors: -

EXHIBIT III-47

Vendor Strategy—SD Scicon

- Survival imperative
  - EDS
  - Cray Electronics
- No visible coordination between U.K. and France
- No visible B&F strategy except Connex Europe
- In U.K. other products sold from a cross-industry group
- In France, GFI has capability in insurance and is interested in securities (Bourses) and banks

7. Sema Group plc

The Sema Group (Sema) was formed in 1988 when the U.K.'s CAP group acquired the shares of France's Sema Group. After a poor-performance under U.K. management, French management took over and the present name was devised. Both companies had been leading systems and professional services vendors in their respective domestic markets prior to their merger, but neither had excelled in profitability terms during the competitive environment of the late 1980s.

The combined company forms one of the largest of Western Europe's computing services vendors with 1990 revenues of over $600 million, of which an estimated $137 million was gained in the banking and finance sector in Europe. This represents some 18% of revenues in the U.K., 25% in France and 22% overall. SEMA is present in most European countries.

The company has a comprehensive portfolio of products and services with capabilities in:

- Professional services, systems integration and marketing services
- Processing services and facilities management

In the current market environment, the group is undergoing a strategic review with a view to improving its market position. It has been the subject of an unwelcome equity participation from its principal French rival, Cap Gemini (CGS). CGS is Europe's largest computing services vendor and now holds a large (27%) stake in SEMA.

Exhibits III-48 to III-52 summarise the key aspects of the company, some of its major banking products and its strategic concerns.

EXHIBIT III-48

Key Vendor Parameters—Sema Group

Name: Sema Group

Founded: 1998

Ownership:
Publicly quoted with major holdings

Revs. (1990)
- **Total Europe:** $622M est.
- **B & F Europe:** $137M

Market Position:
- Leading European computing services company
- Good spread of strengths

Banking Sector Activity:
- Represents 22% of 1990 turnover
- Feels competition from BIS and EDS

EXHIBIT III-49

Product Profile—Cardpac

Name: Cardpac

Launched: 1986
from CCSI of U.S.

Functions:
- Plastic card account management system for bank or store cards
- Adapted for Euro & FE markets

Platforms:
- AS/400
- Tandem
- IBM mainframe

Target Markets:
Retail chains, Banks
- Medium sized issuers (50K + cards)

Est. No. installed: 30 est.

Clients: Claim 75% of retail issuers in the U.K.

Price range:
$150K - $200K
+ up to 60% for customisation

Competitors:
- EDS
- Amex (Signet)

EXHIBIT III-50

Product Profile—IBOS

Name: IBOS

Launched: 1980s

Functions:
Treasury activities in wholesale banks

Platforms:
PC & Novell LAN

Target Markets:
Wholesale banking community

Est. No. installed: 10

Clients: 8 in U.K.

Price range:
$40K (for 4 workstations) and upwards

Competitors: -

EXHIBIT III-51

Product Profile—HSDS

Name: HSDS

Launched: 1980

Functions:
High-speed dealing system kernel developed by SEMA

Platforms:
Stratus & PS/2s

Target Markets:
Banks with large dealing rooms

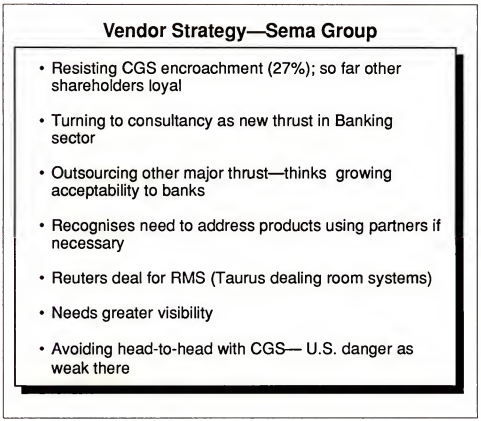
Est. No. installed: 5

Clients
NatWest Bank with 240 workstations

Price range:
Licensee fee usually only 10% of total contract price

Competitors: -

EXHIBIT III-52



Exhibits III-53 summarises the key aspects of the Base 24 Limited 50:50 joint venture company between SEMA and ACI (now a Tandem company). Base 24 markets the products described in Exhibits III-54 and III-55:

- Base 24 itself
- POLEBASE.

In France, these products are marketed directly by Sema. Base 24 Limited is the subject of a separate interview profile in Appendix E.

EXHIBIT III-53

Key Vendor Parameters—Base 24 Limited

Name: Base 24 Limited **Founded:** 1989

Ownership:
Sema & ACI (Tandem)

Revs. (1990)
- **Total Europe:** $12M
- **B & F Europe:** $12M

Market Position:
Markets the world's leading (with 400 installations) products for ATM/EFT/EFTPOS applications

Banking Sector Activity:
- Total commitment to the B&F sector
- Upgrading for speed using RISC technology

EXHIBIT III-54

Product Profile—Base 24

Name: Base 24 **Launched:** 1982

Functions:
1. ATM/EFT } Switching/ } funds transfer
2. EFT POS }
3. RISC version with Barclays for high throughput

Platforms:
Tandem (Stratus earlier)

Target Markets:
Banks
Retailers

Est. No. installed:
400 - Worldwide
32 - Europe (13 U.K., 4 Spain)

Clients
250 Worldwide

Price range:
$300K - $500K by modules
Nodal pricing —> transaction

Competitors:
Connex
OCM24 (IBM)
ON/2 (Logica) - now withdrawn
Action 2000

EXHIBIT III-55

Product Profile—POLEBASE

Name: POLEBASE

Launched: 1990

Functions:
Off-line data collection for EFT/EFTPOS

Platforms:
Tandem

Target Markets:
As for Base 24

Est. No. installed:
3 in U.K.

Clients: -

Price range: NK

Competitors: -

Appendix: Economic Assumptions

Appendix: Economic Assumptions

There follows some notes on the methodology INPUT uses in making forecasts and judging how reasonable they are.

INPUT reports are based principally on three strands of research activity conducted throughout the year:

- A vendor research programme with more than 300 interviews with prominent software and services vendors across Europe. This research assesses their attributable revenues in each country by delivery mode and, where possible, by industry sector. INPUT consultants use their own judgment in many cases to categorise revenues into subsectors. In particular, INPUT excludes revenues considered captive, such as those from a vendor's parent company.

- Several hundred vendor and user interviews across all European market sectors to determine trends and opinions. These interviews are part of the research that INPUT carries out in specific sectors of the software and services market. In 1990 for example, INPUT produced reports on over 20 different software and services market sectors.

- Additionally INPUT maintains an extensive library and database of information relating to the software and services industry. This covers, for example, INPUT's Customer Services Programme data: results of INPUT's research into the hardware maintenance market, which includes its diversification into the software and services market.

All the forecasts from these activities are produced in local currency for each country, then consolidated with common economic and exchange rate data to produce a top level forecast. This is done for software and services in each country and in Europe as a whole. At each stage it is

examined for reasonableness and consistency and, if necessary, revisited. For example, INPUT satisfactorily tested the question: Will predicted user budgets for information systems support the predicted high growth rates in software and services?

The forecasts also benefit from assignments for and feedback from INPUT clients, which include over 100 of the leading vendors of software and services around the world. For example: INPUT supplied an economic model to a market leading client on the potential effect of rising oil prices on forecast software and services growth rates. In summary, this showed that falling real growth was largely counterbalanced by increases in inflation, resulting in continued high dollar growth forecasts for the market.

In order to consolidate INPUT's forecasts and vendor data into a consistent set of European analyses each year, it is essential to use a standard set of economic factors. The following pages show the inflation and exchange rates currently in use.

A

European Exchange Rates

The following table, Exhibit A-1, shows the standard exchange rates used throughout the 1991 programme to consolidate country market data for overall Western European forecasts and vendor market shares.

EXHIBIT A-1

U.S. Dollar and ECU Exchange Rates 1991

Country	Currency	U.S. Dollar Exchange Rate	ECU Exchange Rate
France	FF	5.65	7.74
Germany	DM	1.68	2.30
United Kingdom	£	0.515	0.704
Italy	Lira	1,233.0	1,689.0
Sweden	Sek	5.61	7.69
Denmark	DK	6.39	8.75
Norway	NK	6.49	8.89
Finland	FM	3.96	5.43
Netherlands	Dfl	1.69	2.32
Belgium	BF	34.60	47.40
Switzerland	SF	1.27	1.74
Austria	Sch	11.80	16.17
Spain	Ptas	95.0	130.12
	$	1	1.37

Source: Barclays Bank (Q4 1990)

Exhibit A-2 shows the standard exchange rates used throughout the 1990 programmes to consolidate country market data for overall Western European forecasts and vendor market shares.

EXHIBIT A-2

U.S. Dollar and ECU Exchange Rates
1990

Country	Currency	U.S. Dollar Exchange Rate	ECU Exchange Rate
France	FF	6.17	6.87
Germany	DM	1.81	2.05
United Kingdom	£	0.631	0.74
Italy	Lira	1,336	1,502
Sweden	Sek	6.39	7.41
Denmark	DK	7.05	7.8
Norway	NK	6.85	7.94
Finland	FM	4.21	4.84
Netherlands	Dfl	2.05	2.3
Belgium	BF	38.06	42.29
Switzerland	SF	1.61	1.8
Austria	Sch	12.77	14.39
Spain	Ptas	115.8	129.7
	$	1	1.20

Sources: Exchange rates - Barclays Bank (1989)

B

European Inflation Rates

Exhibit A-3 shows the average five-year inflation assumptions for each reported country and the changes from those used in reports produced in the previous year. All INPUT forecasts include the effects of inflation as well as natural market growth rates. For consistency, the same inflation rates are used throughout all the different market sector research and analysis during a calendar year, unless specified otherwise.

EXHIBIT A-3

Inflation Assumptions, 1990 and 1991

Country	Assumption 1990-1995	Assumption 1991-1996	Change
France	4.5	3.0	-1.5
Germany	4.0	2.7	-1.3
United Kingdom	7.0	4.8	-2.2
Italy	7.0	4.4	-2.6
Sweden	7.0	6.3	-0.7
Denmark	5.0	2.7	-2.3
Norway	5.0	4.9	-0.1
Finland	6.0	5.0	-1.0
Netherlands	3.0	2.4	-0.6
Belgium	4.0	3.3	-0.7
Switzerland	5.0	3.3	-1.7
Austria	4.0	2.6	-1.3
Spain	6.5	4.7	-1.8
Rest of Europe	10.0	7.7	-2.5
European Average	5.5	4.0	-1.5

Sources: OECD 1991 Forecast
IMF 1989

Exhibit A-4 shows the inflation assumptions for both the 1989 and 1990 research programmes.

EXHIBIT A-4

Inflation Assumptions, 1989 and 1990

Country	Assumption 1989-1994	Assumption 1990-1995	Change
France	4.0	4.5	+0.5
Germany	2.5	4.0	+1.5
United Kingdom	5.5	7.0	+1.5
Italy	6.0	7.0	+1.0
Sweden	6.0	7.0	+1.0
Denmark	6.0	5.0	-1.0
Norway	4.0	5.0	+1.0
Finland	6.0	6.0	0.0
Netherlands	2.0	3.0	+1.0
Belgium	3.5	4.0	+0.5
Switzerland	2.5	5.0	+2.5
Austria	3.0	4.0	+1.0
Spain	5.5	6.5	+1.0
Rest of Europe	8.0	10.0	+2.0
European Average	4.5	5.5	+1.0

Source: IMF 1989

Appendix:
French Interview Reports

INTERVIEW REPORT

CREDINTRANS
37-39, Av. Ledru-Rollin
75012 Paris
33.1.40.19.22.66

B. Vaginay, Sales
Responsible for the B&F sector

A. BASIC DATA CAPTURE SECTION

1. Which of your software products are targeted at the banking and finance (B&F) sector

The primary activity is service bureau and facilities management in clearing and settlement, handling connection to the Swift network, EFT applications and financial data for front and back office. This activity only targets banks (60 banks are clients) and represents 60% of the current revenue.

The other activity is the development and the sale of software packages. It represents 40% of the current revenue.

Three product lines affect the B&F sector: the first targets all sectors of activity; the second product line is for banking and large retail traders. The third one is files transfer for teleclearing.

2. Products description and information

See attached table and documents on products literature.

3. Who do you consider to be your main competitors in your market for B&F software products?

In the field of software packages, the main competitors are

- NETSYS (subsidiary of SEGIN, a company of the AXIME group) for the CFT package
- AXIME, SEMA Group, IBM and SG2 for the EFT activity
- SESIME (AXIME Group) for the AlphaSIT product

Software package	CFT	SAGA	AlphaSIT
Brief description	File transfer management in heterogeneous world for all sectors (B&F, industry, large retail)	Dedicated to monetics applications: telecollection in electronic payment for banking and large retail organisations	Teleclearing for the SIT networking program for banks only
Principal functions	Package is implemented in several independent modules: · CFT heart · System interface · Network interface · User interface allowing easy matching to several manufacturers and software products	- Telecollection for ticket machine - Ticket machine management - Message router - Authorisation server	
· Typical custom (%)	0	Parametering capability	
Current equipment platforms (specify equipment) and languages supported) IBM, DEC, UNIX PC	All major vendors on all their range products (30XX, 43XX, AS/400, PC/PS - DOS/OS2, VAX/VMS, Bull, HP, NCR, Sun	only IBM/MVS platforms	all IBM/MVS platforms Bull GCOS 7 and GCOS 8 platforms
Planned equipment platform (NB UNIX)	UNIX SCO Ultrix ongoing	Not planned	Not planned
Telecom/network capability	Yes	Yes	Yes
Product origin/ history	Internal development	Internal development	Internal development
· Date of introduction	1987	1989	end of 1988
Contribution to total annual revenue (%)	25M FF (21%) (25M FF of which less than 8M FF are coming from the B&F sector)	4M FF (3,3%)	7M FF (5,8%)

(cont'd)	CFT	SAGA	AlphaSIT
Marketing channels (specify numbers)	12 salesmen in the internal salesforce 80% of the total sales, 6 people	100%, 6 people	100%, 1 salesman
· Agents/#	None	None	None
· Distributors/#	6 vendors and software houses are agreed to market it: IBM, BULL, DEC, Sun, have included it in their catalogue and market it (except DEC)	None	None
· Agreements	With NCR and Unisys		
· Target Markets	All sectors of activity	Banks and large retail trade groups	Banks only
· Client type/contact	Information systems and organisation-Manager or Director		
Licensing arrangement/fee	5K - 250K FF	260K - 1.5M FF	600K - 1.0M FF
Installed base mainly in France	10,000 usage license rights	25 clients	12 banks French market share 60% (BDF, CCF, Compagnie Bancaire, Crédit Mutuel
· Germany	2 installations		
· UK	2 installations		
· Italy	3 installations		

B. COMPANY INFORMATION

4. Amount and breakdown of the registered capital:

Born in 1974 as a GIE, the company is today a société anonyme. The current registered capital is 15M FF.

· *Parent or holding company:*

Creditrans is 100% owned by the CIC (itself owned by the GAN Insurance Company)

· *Subsidiaries:* no domestic or international subsidiary

· *In which European countries are you active? Is all your range of products available in France, UK, Germany, Italy and Spain?*

If the company has already sold abroad on request of a few large customers - usually French large accounts present in Europe or worldwide (Renault, PSA, Rhone Poulenc) - its activity abroad is just starting this year.

· *Details of any distributors, agents or other commercial arrangements that you may have for marketing your products, and for how long have these been established?*

Several agreements are ongoing with vendors or software houses to market and support locally the products (mainly CFT packages):

Bull Group in Benelux, TAS in Milano, CTI in Madrid and Softswitch in the USA.

5. What proportion of your revenues are generated in these countries from the B&F sector?

This proportion is currently very low: <5% (around 3M FF) in 1990. It is not planned to see it going higher in 1991 (around 6,5M FF).

6. Do you consider that there exist any similarities or synergies between the different country markets in Europe for B&F systems?

Yes, for the telematics, the EFT and the electronic payment fields. All the products marketed by Creditrans can be used in other European countries except those dedicated to the EFT applications since the French banking organisation is different and more complex than in the other countries (for example, the complex French clearing system is not applicable abroad).

8. Revenues	1989	1990	forecast 1991
Total (M FF)	98	120	135
France/Internat. (M FF)	98/0	117/3	128/7
Banking & Finance sector only (%)		72% (87 M FF)	60%
Net Profit (M FF)	6,7	6,9	9
Payroll	108	134	150

The current strategy of the company is to push sales of software packages not purely dedicated to the B&F sector (like the CFT package) to all types of large accounts to reduce the contribution of the B&F sector to overall revenue.

C. TRENDS AND ISSUES

9. What do you perceive to be the major problems that B&F institutions are experiencing with regard to software development?

The interviewee assessment is that the banks are coming back to their basic banking activity and they request:

- Full implementation by the provider
- Software packages independent of the system platforms, quickly developed and well-documented (to the detriment of the performances)
- Revival of interest in facilities management.

10. In your opinion, what are the areas of highest need?

- Interbank networks (SIT, RELIT networks)
- Common office workstations with sales management tools
- Cost accounting

(Products and services for the stock market are no longer a priority since the banks are now provided with these.)

11. What do you see as the biggest challenges in this or these areas to the vendors and why?

- *R&D*: Full quality and parameterable products
- *Marketing (sales, pricing)*
- *Distribution*
- *Support*: Quality
- *Others*: Financial viability of suppliers and access to foreign markets.

12. Where do you see the major opportunities for applications software products?

- *Now*:
  - to develop products to manage electronic payment and its environment
  - to bring support and associated services
- *In the future* - NA;

13. What is the rôle of applications products for your company?

	% Internal Resources	% Sub-contracting
· Support turnkey systems	0	0
· Support systems integration	rare	0
· Support processing services/systems operations	100	0

14. What do you see as the major threats to your organisation in the B&F market?

The main threats could be:

- The poor health of the B&F sector today
- Foreign competition
- The risk of seeing the banks 'repatriating' outsourced services to their internal IS departments
- The evolution of banking systems is anticipated to become stationary in the near future after a fast moving period. Large capital investments are expected to be restricted while operating expenses should see a slowing down of growth.

15. What do you see as the major areas of opportunity in the B&F area?

- Back-up and facilities management in the networking area
- Foreign markets.

16. Are there any other major trends or issues concerning the B&F market that we haven't already covered?

No.

INTERVIEW REPORT

FININFO
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Mrs. C. Pincon, Marketing & Communications

A. BASIC DATA CAPTURE SECTION

1. Which of your software products are targeted at the banking and finance sector

FININFO is entirely dedicated to the B&F sector.

The company's skills are in transmission in real time of financial data, data base implementation and implementation of decision assistance software products. The activity mainly consists of providing software products and processing services.

The software products consist of:

- Solutions for the forex market (Finoblig, Promat, Omat and Dynamat packages)
- Solutions for the stock market (Finaction, Bankfi, Onat, Finopc, dealer's book packages)
- Multimarket graphic analysis, files transfer and numeric data flow handling (Statbase, Finalim, Fininflux and Actiflux packages).

The company policy is to market subscriptions to its products running on a service bureau basis. To satisfy customer demand, FININFO has installed in its computer centre one of the largest VAX cluster configurations in France.

2. Products description and information

See attached table and documents on products literature.

Product Name	OMAT, PROMAT FINOPC, FINOBLIG, FINACTION, ONAT, STATBASE, BANKFI	FININFLUX, ACTIFLUX	FINALIM
Brief description	Products for - Forex Market - Stock Market - Bond Market - Mutual Funds Market	Numeric data flow handling	Data supply
Principal Functions	- Real-time database access - Real-time quotation control - Decision assistance tools - Simulation tools and statistics - Financial analysis and assistance on French companies	- Real-time trading for stock market - Real-time quotation control	- Supplies financial data and stock exchange data for middle- and back-office transactions - rough data file transfer
· Back/middle/ front office	Front office	Front office	Front, middle and back office
· Typical custom (%)	0	0	0
Current equipment platforms (specify equipment and languages) supported) IBM, DEC, UNIX, PC	Provided through service bureau using SUN and other UNIX workstations	VAX/VMS + PC/DOS + SUN	PCs
Planned equipment platform (NB UNIX)	-	-	VAX/VMS
Telecom/network capability	Not in-house	Not in-house	Not in-house
Product origin	FININFO	FININFO with EFFIX for product integration	FININFO
· Date of introduction	1982-1989	1990	1990
Contribution to total annual revenue (%)	80%	<---------starting---------> 10% for both categories	

(cont'd)	FINOPC, FINOBLIG, FINACTION, ONAT, STATBASE, BANKFI, OMAT, PROMAT	FININFLUX, ACTIFLUX	FINALIM
Marketing channels (specify numbers)	10 salesmen in the internal salesforce		
· Direct sales/#	100%	100%	100%
· Agents/#	None	None	None
· Distributors/#	None	None	None
· Alliances		With EFFIX	With SCBF (an Altus Finance subsidiary)
· Target markets	Brokers, traders, market rooms	Only for traders	Back-office and middle office analysts
· Client type/contact	All banks and financial institutions, insurance companies, pension funds, stock exchange companies Information system manager + functional managers		
Licensing arrangement/fee	70K - 190K FF	90K - 100K FF	From 50K FF
Installed base	For the service bureau activity, the company policy consists of selling subscriptions		
· France	The company claims 300 clients, mainly in France		
· Germany			
· UK			
· Italy			

3. Who do you consider to be your main competitors in your market for B&F software products?

The main competitors are SDIB, a SBF subsidiary (Société des Bourses Françaises),

MICROPAL for the bonds market and REUTERS/TELERATE partially.

B. COMPANY INFORMATION

4. Amount and breakdown of the registered capital:

Created in 1982, FININFO is an independent company with a 12M FF registered capital.

The company (a société anonyme) has been listed in the second market of the Paris stock exchange since March 1988.

The majority of the capital (52,6%) belongs to the chairman/founder (Mr. Jeulin) and his family. The other significant shareholders are SBT (another Altus Finance subsidiary) with 20% and Arjil bank (a business bank) with 6,5%.

· *Parent or holding company: none*

· *Subsidiaries:*

FININFO owns FINACTIF (99%), FINEFIX (100%) a Spanish subsidiary, and has shares in the French EFFIX SYSTEMES (41%) and FORMATICK (34%), a training company.

· *In which European countries are you active? Is all your range of products available in France, UK, Germany, Italy and Spain?*

The business is starting up in Spain through a subsidiary with the numeric data flow handling products. They are specific to the Spanish market.

5. What proportion of your revenues are generated in these countries from the B&F sector?

This business isn't significant yet.

6. Do you consider that there exist any similarities or synergies between the different country markets in Europe for B&F systems?

The ideal solution should be to develop supranational products. The company is looking for a suitable project and it can be anticipated that the company will put such a development in its plans in the short term. The lead time to complete the project would be a couple of years.

7. What other areas of activity are you involved in?

- *Industry sectors, software and services sectors*

The company only provides application products and services to the B&F sector.

8. Revenues	1989	1990	1991 (forecast)
Total (M FF)	96,1	121,7	not released *
France/Internat. (M FF)	96/-	121/-	
Banking & Finance sector only (%)	100%	100%	not released *
Net Profit (M FF)	23,5	23	not released *
Payroll	89	117	

* For company policy reasons

The high performance of the profit ratio should be noted.

C. TRENDS AND ISSUES

9. What do you perceive to be the major problems that B&F institutions are experiencing with regard to software development?

The interviewee assessment is that the major needs are:

- The rationalisation of the equipment and the decision assistance tools
- The quality and the long-term viability of the offerings.

10. In your opinion, what are the areas of highest need?

In the future, all the products released by the vendors should be usable in international markets. FININFO is prepared to do so (please refer to question 6).

Demonstrating the high interest of the "video" product line (products listed in the first column of the table), the company is still working on new developments in this sector.

11. What do you see as the biggest challenges in this or these areas to the vendors and why?

- R&D } here are the biggest challenges to the vendors and the key points to succeed in the above challenges
- Marketing (sales pricing) }
- Distribution
- Support:
- Others:

12. Where do you see the major opportunities for applications software products?

- *Now:*
- *In the future:*

This information, considered as confidential, has not been released by the interviewee.

13. What is the rôle of applications products for your company?

Taking into account its activity, the company isn't concerned by this subject since it provides only solutions in a service bureau environment and software packages through its own computer center. The service provided is an integrated solution or set of solutions.

	% Internal Resources	% Sub-contracting
· Support turnkey systems	not applicable	
· Support systems integration	not applicable	
· Support processing services/systems operations	not applicable	

14. What do you see as the major threats to your organisation in the B&F market?

The main threat should come from the reduction (in quantity) and the current restructing of the traders and brokers in the financial marketplace (for example, SBF).

15. What do you see as the major areas of opportunity in the B&F area?

The short answer to this question was "providing financial and stock market data to other sectors than the traditional sector addressed today."

Although our interviewee didn't dwell on this subject for the same reason as in question 12, INPUT presumes the company intends to address the financial division of large groups in industry and the services sectors with products exploiting the FININFO databases like Finalim and Statbase.

16. Are they any more major trends or issues concerning the B&F market that we haven't already covered?

No.

INTERVIEW REPORT

SEMA GROUP
16 Rue Barbès -
92126 Montrouge Cedex
33.1.40.92.40.92

C. Czechowski - Directeur Général, Branch Conseil et Informatique de gestion France

A. Duvivier - Products Division Manager

Date of the interview: June 17, 1991

A. BASIC DATA CAPTURE SECTION

1. Which of your software products are targeted at the banking and finance sector

With the contribution of the CAP and Tibet companies, SEMA Groupe claims the first place in Europe and France in the area of software packages aimed at banking and finance organizations. The wide range of software products being offered targets:

- Centralised and integrated management of commercial banks (clients/products/accounting) with the SBS integrated software package
- EFT (electronic funds transfer) with the Cardpac, Base 24 and Sebdis software products
- Capital and financial markets (management information systems for brokering, trading rooms, back office) with HSDS, IBOS, Investiciel software packages as well as equivalent products for the Spanish market.

The company is also active in the insurance sector (one-third the size of SEMA's B&F revenue).

Equipment platforms are limited to IBM AS/400 and 30XX series for these products.

2. Products description and information

(See attached table and documents on products)

3. Who do you consider to be your main competitors in your market for B&F software products?

In France, the competitors that the company meets are SOPRA, sometimes AXIME, and occasionally, Hogan Corp. (against the SBS products).

In the capital markets area (where the products are from CAP Group), SEMA isn't active in France.

SEMA expects to meet PBA BANKOR in the EFT/back office area since this company will release new products as of June 1992.

2. Software Product Name	SBS	BASE 24, SEBDIS, CARDPAC	HSDS, IBOS (UK) Investiciel* (Tibet) Rout 10/Dif 10/Set 10
Brief Description	Centralised integrated management system	Management System for EFT	Set of products aimed at capital and stock markets
Principal Functions	Catalogue Structure Clients/Products/ accounting	Several modules for handling: - access authorisation - bearers accounts - retailers accounts - recovery & scoring	IBOS targets front-office transactions for the market rooms HSDS is dedicated to very large market rooms Rout 10/Dif 10/Set 10 are Spanish products for brokers
· Back/middle/front office		Back office	Front office for HSDS; back/middle/ front office for other products
· Typical custom (%)	Parameting capability and interfaces	30%	<10%
Current equipment Platforms (specify equipment and languages supported)	IBM 30XX/MVS Bull DPS 8/DPS 90 GCOS 8	IBM 3090 only MVS/CICS	PC workstations (IBOS)
Planned equipment platform (NB UNIX)	None (UNIX not planned)	No	Yes (IBOS)
Telecom/network capability	Yes, for all types of public and proprietary networks	Yes for SEB 10 and BASE 24	Novell Token Ring (IBOS)
Product origin/history · Date of introduction	SEMA Uniciels 1991	CCSI Inc. (a US company) 1988	Former CAP Group 1986
Contribution to total annual revenue (%)	50 to 100M FF anticipated (medium price of a package: 30M FF). Already ordered by 40 CRCAM (Credit Agricole Group)	120M FF with CARDPAC packages	5M FF

* INVESTICIEL, a package of portfolio management, is only marketed by TIBET (a SEMA Group subsidiary). TIBET handles all the prospects brought back by SEMA Group.

(Cont'd)	SBS	BASE 24, SEBDIS CARDPAC	HSDS, IBOS (UK)
Marketing channels (specify numbers)			
· Direct sales/#	100%	100%	100%
· Agents/#	None	None	None, except Japan
· Distributors/#	None	None	Only one in Japan (IBOS)
· Agreements	None	None	None
· Target markets	All small and medium size banks	Banks, insurance, large retail, credit institutions, all utilities (Electricity and Gas Board, ...)	All market rooms from 1-50 brokers (IBOS) over 50 brokers (HSDS)
· Client type/contact	General Manager + IS Manager	General Manager + Functional Managers + IS Manager	Market Room Exec.
Licensing arrangement/ Fee	NK	980K - 1.5M FF Agreement with CCSI for Africa and Middle East	250K - 1.0M FF
Installed Base Total Europe	Starting up (6 sales on-going)	CARDPAC 30	15 licences 25 sites 500 workstations
· France	0	4	0
· Germany			
· UK			50%
· Italy			
Asia		20 licences	30%
	The SBS package makes the biggest contribution to the revenue	170 worldwide installations for Cardpac, the package sold most	

B. COMPANY INFORMATION

4. Amount and breakdown of the registered capital:

With a current registered capital of £M 9, the SEMA Group is the result of the merger of the French SEMA-METRA and the British CAP companies.

· *Parent or holding company:*

Listed on the Paris stock exchange, the company is owned by five main shareholder companies and the public. The main shareholders are Cie Financière de Paribas (39%), Cap Sogeti (27,7%), Schneider SA (10,5%), CIN Venture Managers Ltd (6,7%) and Credit Agricole (4,5%).

- *Subsidiaries:* the company has a lot of domestic and international subsidiaries.

In France, the main subsidiaries are SEMA Group SA, Gecom, SEMA Group Management Consultants, Sofres, Tibet and Uniciels.

In the UK, the subsidiaries are SEMA Group UK, Baddeley Associates Ltd, Panther Systems Ltd, SEMA Group Facilities Management Plc, SEMA Group Systems Ltd, Yard Ltd and Yard Software Systems Ltd. Other subsidiaries are located in Singapore, Italy, Germany, Belgium and Nederland.

The group holds major participations in ten other companies aimed to the information systems technology and located in France, the UK, Germany and Spain.

- *In which European countries are you active? Is all your range of products available in France, UK, Germany, Italy and Spain?*

The company has already sold abroad in every country where the group owns subsidiaries.

- *Details of any distributors, agents or other commercial arrangements that you may have for marketing your products, and for how long have these been established?*

None, except one in Japan for IBOS.

5. What proportion of your revenues are generated in these countries from the B&F sector?

Twenty-two percent in 1990.

6. Do you consider that there exist any similarities or synergies between the different country markets in Europe for B&F systems?

Yes, there are similarities.

- In the capital market field, except in atypical financial marketplaces like the Parisian market

- In back-office transactions where the needs are the same everywhere (only 10% of customisation)

- In general banking systems

But our interviewee did not find any similarity in the EFT field where the networks are different in each country.

7. What other areas of activity are you involved in?

- *Industry sectors (industrial process, manufacturing, professional services, CIM,...)*

- *Software and services sectors*

SEMA GROUP is involved in all sectors of the IS industry, including consultancy.

8. Revenues	1989	1990	1991 forecast
Total Group (£M) France/Internat. (£M)	293 121/172	375 159/216	not released **
Banking & Finance Sector Only (%)	£30M for French activity £72M worldwide	22% (11% for packages) £60M in France £85M worldwide	not released **
Operating Profit before Tax (£M) Group	17.5	15.3	not released **
Payroll France/Total Group	2113/6525	2504/7521	

** The London stock exchange (where the Group is registered) prohibits the release of any information or figures relating to the ongoing fiscal year.

C. TREND AND ISSUES

9. What do you perceive to be the major problems that B&F institutions are experiencing with regard to software development?

The needs and requirements should be

- For banks: to redevelop the heavy production applications, building them around the clients instead of the products. Here there is an advantage for application software packages.

- For financial institutions: the solutions exist but users are requesting integration. The evolution of products will tie in with the ergonomics of the workstations.

- For all other institutions (insurance, utilities, large retailers): to satisfy the need for credit creating facilities by implementing software tools to provide them.

10. In your opinion, what are the areas of highest need?

These areas will be:

- The strategic reorientation of banks through ongoing mergers

- Using foreign networks for Europeanwide business purposes

- The common interest shared by banking and insurance in exploiting and developing their clients' investments: there is the need to develop specific software tools.

11. What do you see as the biggest challenges in this or these areas to the vendors and why?

- *R & D*: the third priority
- *marketing (sales, pricing) and support*: the top two priorities
- *distribution*
- *others*:

  - Setting up productivity tools and methods to develop and market products in compliance with the standard ISO 9000

  - Shortening the implementation process for software products

  - Reducing production costs

12. Where do you see the major opportunities for applications software products?

· *Now*: To develop new products aimed to make management information systems independent of the information they contain. These products should cover:

- A global banking information system, including the commercial and the client interfaces at the branch level

- A management system for institutions

13. What is the rôle of applications products for your company?

	% Internal Resources	% Sub-contracting
· Support turnkey systems	60%	40%
· Support systems integration (mainly)	100%	
· Support processing services/systems operations	FM through Axone	

14. What do you see as the major threats to your organization in the B&F market?

The main threats are:

- Competition from the computer vendors (mainly IBM and Digital)

- The slump in investment budgets

15. What do you see as the major areas of opportunity in the B&F area?

- To provide a wide range of skills (consultancy, training, etc.) SEMA Groupe is already very involved in consultancy on behalf of its clients and prospects

- To take advantage of the changes taking place in the B&F business. These changes will require the banks to call in the professional services vendors.

16. Are there any other major trends or issues concerning the B&F market that we haven't already covered?

No.

INTERVIEW REPORT

SITB-APB
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P. Eclancher - Marketing Manager for the B&F Sector

Date of the Interview: June 19, 1991

A. BASIC DATA CAPTURE SECTION

1. Which of your software products are targeted at the banking and finance sector

During the last two years, the company has joined the AXIME group with several other companies already providing products and services in the B&F sector (FITB subsidiaries, SOFI, SODIFI, SODINFORG, SEGIN). Due to this big organisational change, it can be anticipated that the company offering will evolve and will be subject to change in the near future.

Today the offering in the B&F sector is made up of service bureau processing services and software packages run on IBM mainframes (30XX and 43XX) and the IBM AS/400. These products and services target the following fields:

- Workstation management for the front-office operator with the Teknekron package (UNIX)
- Management system for the French "OPCVM" with the Agora package (30XX, 43XX)
- Back-office management for securities with the Titan package (30XX, 43XX)
- Banking transaction management with the Atlas package (30XX, 43XX)
- General market transaction management with the Vertex package (30XX, 43XX)
- Integrated commercial bank management with the Applicabanque package (AS/400)

- Several packages supported by PCs and compatibles. They are information management systems for statutory products, departmental banking activity, accounting and financial products.

The facilities management service, a part of the service bureau activity, is carried out jointly with AGERIS, another AXIME subsidiary dedicated to back-up or disaster recovery (DRS).

2. *Products description and information*

See attached table and documents on product literature.

3. *Who do you consider to be your main competitors in your market for B&F software products?*

In the service bureau area, the main competitors are:

- Tibet (a SEMA GROUP company) for the stock exchange activity
- CGII and ALTAI for the bank transaction system
- DATAFINANCE for the OPCVM transaction system.

In the field of software products, the main competitors are:

- SCBF for the packages supported by the minis and the micros
- QUOTIENT, a UK company (now part of ACT Group plc)
- SAMIC for the products supported by the AS/400.

Software Packages	ATLAS APPLIBANQUE	VERTEX	TITAN
Brief Description	Bank transactions management system Integrated commercial bank management	Market transactions management system	Back-office management system for securities transactions
Principal functions	Package is implemented in several independent modules.	- Foreign exchange - Cash transactions - Capital market transactions	- Accounts handling - Securities handling - Securities accounting - Monthly settlements - Clients accounting
· Back/middle/ front office		Back office, Middle office and front office	Middle and back office
· Other		Risk management	
· Typical custom (%)	10 to 30%	20%	20%
Current equipment platforms (Specify equipment and languages supported IBM, DEC, UNIX, PC	30XX, 43XX, AS/400	30XX, 43XX, 9370 MVS or VSE/CICS	9370 30XX, 43XX MVS/COBOL CICS
Planned equipment platform (NB, UNIX)	None	None	None
Telecom/Network capability	Yes	No	Yes, RELIT
Product origin/history	Internal development	Vertex (a US company)	SITB
· Date of introduction	1985	1991	1985
Contribution to total annual revenue (%)	20%	Just starting	300M FF (Service Bureau)

(Cont'd)	ATLAS APPLIBANQUE	VERTEX	TITAN
Marketing channels (Specify numbers)			
· Direct sales/# · Agents/# · Distributors/# · Alliances	100% with 10 salesmen None None With IBM	100% None None None	100% None None None
· Target markets	Medium and small banks	All institutions with a market room	Large banks
· Client type/contact	General Manager	General Manager + IS Manager	General Manager + IS Manager
Licensing arrangement/fee	NK - Function of the number of modules	NK	350K FF - 600K FF pa.
Installed base			
· Europe		3 licenses	28 licenses
· France	15 Applibanque licenses 40 Atlas licenses	3 licenses	18 licenses
· Germany			
· UK			
· Italy			
· Spain			

Product Name	TEKNEKRON	AGORA	STRANGER II SIT 3000/3100 PONT 3000, STAT 3000, GESTCOEF GESTCHANGE GESTCRP GESTFACT GESFI + GESTCOOKE GUESTDAILLY GESTRISK GESTERME
Brief description	Workstation Management system for front office operator	Management system for "OPCVM" (SICAV, FCP	Software packages for micros
Principal functions	The Teknekron trading system is a tool and a network manager to handle financial informations and applications	- OPCVM accounting - database - editing and extracting - management assistance	
· Back/middle/ front office	Front office	Middle and back office	Middle and back office - statutory reporting - accounting - finance - statistics - international transactions and handling
· Other			
· Typical custom (%)	20%	20%	
Current equipment platforms (specify equipment and and languages supported IBM, DEC, UNIX, PC	All UNIX Workstations (but only UNIX)	9370 30XX, 43XX MVS,DB2	PC workstations 30XX, 43XX 9370 AS/400 DEC VAX
Planned equipment platform (NB, UNIX)	Not applicable	No	No
Telecom/network capability	Yes	No	No
Product origin/ history	Teknekron Software Systems Inc.	SITB	SITB
· Date of introduction	1990	1991	1985
contribution to revenue	12M FF	Starting	15M FF

(Cont'd)	TEKNEKRON	AGORA	Software packages
Marketing channels (specify numbers)			
· Direct sales/#	100%	100%	100%
Target markets	All institutions with a market room	All companies having to manage portfolios	Banks
· Organisation			
· Client type/contact	General Manager + IS Manager + Network/ Telecom Executive	General Manager + + IS Manager + Portfolio Manager	IS Manager + Department Managers
Licensing Arrangement/fee	NK	NK	12K - 16K FF
Installed base			
· Total Europe	3	3 (Service bureau)	600 +
· France	3	3	600
· Germany			
· UK			
· Italy			
· Spain			

B. COMPANY INFORMATION

4. Parent or holding company:

Founded in 1952, SITB is a subsidiary of the FITB group. The merger of FITB with AXIME is underway and no information has been released on the new structure of the B&F activities of the group nor on what will be the new SITB status. Nevertheless, the company is anticipated to be included in a new structure, since the AXIME plan is to assemble its activities by business type.

Once the merger is completed, AXIME should rank as the third largest service company in the French market with a consolidated revenue of 2,300M FF for the mid-1990 to mid-1991 period.

· *Subsidiaries:*

Today, SITB is still an FITB subsidiary. The other sister companies are CERG (do not confuse with CERG Finance), SESIME, APB and AGERIS.

· *In which European countries are you active? Is all your range of products available in France, UK, Germany, Italy and Spain?*

So far, SITB has no activity abroad but is thinking of starting to trade in Germany, Belgium, Netherlands and Luxembourg. A joint agreement is planned with ODS, the Spanish subsidiary of SEGIN.

5. What proportion of your revenues are generated in these countries from the B&F sector?

There is no contribution yet.

6. Do you consider that there exist any similarities or synergies between the different country markets in Europe for B&F systems?

Yes, the functions to be covered are similar, but the organization, the clearing and the statutory instruments are different.

But, contrary to the Credintrans assessment, our interviewee considers that the products for EFT are exportable as well.

7. What other areas of activity are you involved in?

- *Industry sectors (industrial process, manufacturing, professional services, CIM, etc.)*

SITB isn't involved in the manufacturing sector but the other AXIME subsidiaries are.

- *Software and services sector*

In the service bureau business, SITB competes with GSI in payroll processing. The company is active in the real estate area through its subsidiary SITI, which offers estate agency management systems.

8. Revenues	1989	1990	1991 forecast
Total (MF)	565	616 + 25 (APB)	600 + 40
France/Internat. (%)	100% / 0	100% / 0	
Banking & Finance	98%	98%	98%
Net Profit (M FF)	The company policy is to not release this information		
Payroll	N/K (Partial common payroll with AGS)	900	900

C. TRENDS AND ISSUES

9. What do you perceive to be the major problems that B&F institutions are experiencing with regard to software development?

From our interviewee's point of view, the information system is becoming a competitive factor between B&F institutions. The major problems they are meeting stem from the over-fast evolution of both technology and their requirements. That means and implies:

- Long-term viability of the software products and their providers
- Difficulties for the providers in anticipating the needs, i.e., to constantly re-position and to update their offerings.

10. In your opinion, what are the areas of highest need?

- Productivity tools
- Management tools to support the customer services function
- Integration and communication between the services provided

11. What do you see as the biggest challenges in this or these areas to the vendors and why?

- *R&D*: not a priority
- *Marketing (sales, pricing)*: the top priority in order to anticipate and reply to changing needs
- *Distribution*: has to take over and market the existing products (second priority)

- *Support*: the lowest priority "since it is already provided".
- *others*: -

12. Where do you see the major opportunities for applications software products?

- *Now*: Providing flexible and personalisable workstations able to satisfy application items listed in question 10 (i.e., productivity, customer services, integration/ communication).
- *In the future*: Providing intelligent voice systems to improve personal workstations.

13. What is the rôle of applications products for your company?

	% Internal Resources	% Sub-contracting
· Support turnkey systems	100	0
· Support systems integration	100	0
· Support processing services/systems operations	100	0

14. What do you see as the major threats to your organization in the B&F market?

The main threats are:

- Competition coming from the banks themselves through their DP subsidiaries and their DP departments in order to keep control and the revenues in-house (this threat already noticed by Credintrans). Our interviewee gives examples: SCBF with Crédit Lyonnais, Credintrans with CIC, Altaïr with Caisse des Banques Populaires.

15. What do you see as the major areas of opportunity in the B&F area?

- Rebuilding our software products to comply with the needs of downsizing, portability and maintenance.
- Providing re-engineering tools to work on existing suites of programmes.

16. Are there any other major trends or issues concerning the B&F market that we haven't already covered?

A major question is raised by the present opening up of international markets. What consequences will international banking mergers have on the business and the vendors?

INTERVIEW REPORT

STERIA BANQUE
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P. Maillot - Directeur Stratégie

Date of the interview - June 19, 1991

A. BASIC DATA CAPTURE SECTION

1. Which of your software products are targeted at the banking and finance sector

The Steria offer in the B&F sector is made up of a very wide range of applications software products (customised products and packages) and covers the following fields:

- International transactions with the Stobi 2, Stache, Stardoc and Steman packages
- Swift and Telex networks with the Stachem, Stelex, Telex Reader, Sip II and Micro Stelex packages
- Stock market room - stock exchange - applications with the Stirel, Stefonds, Deal Reader and Tigre packages
- Clients - accounting and trading applications with the Stagge, Stagge Prets, Stegec, Stechelles, Logipret, Loggen, Stebank, Logpret, and Sybu packages
- Legal routines with the Stirocco package
- Information flow handling with the Stirege package
- EFT routines with the Stegab package
- Videotex and E-mail with the Videopac and Vdx Star packages
- General services with the Logeco, Loge 4, Logdep, Logparc and Logarch packages

2. Products description and information

Due to the wide range of the product lines and to the quantity of the packages in each one, it would be too heavy to detail the full range of 32 products. We only highlight here the most interesting features of those products that cover the main needs of the B&F organisations:

- Although all the products are parameterable, they are also liable to be customised to customer requirements.

- In each product line, the standard policy is to offer packages supported by platforms based on mainframes, minis and, for a part of them, PCs from the major vendors.

  · The mainframe platforms are IBM 30XX/43XX and Bull DPS/GCOS 8,

  · The mini platforms are Bull/DPX, DEC VAX/VMS, HP/MPE and Stratus,

  · The micro platforms are MS/DOS, OS/2 and Prologue, but only a part of the packages are supported (Stardoc, Steman, Stachem, Micro-Stelex, Stirel, Sybu and the general services product line).

  · Only the Sybu package is supported by UNIX (on Bull-DPX, NCR-Tower).

- The telecom/network capability has been implemented for X.25 and X.400 and for the E-Mail packages. The company has been involved in the RELIT project.

- Ninety-nine percent of the products are from Steria itself and have been introduced between 1975 and 1991, with several evolutions and updates for the oldest products.

- The company policy is to not release any information on the contribution of each product to the revenue.

- Over 90% of the products are marketed through direct sales. Alliances have also been concluded with the major vendors (IBM, Bull, DEC and HP) for developing system interfaces.

- The target markets are all the B&F institutions, from the biggest ones to the small local or regional banks. The usual contacts are the general manager and the information system manager.

- The company claims 400 clients in the B&F area, mainly located in France, including 60 Stachem sites (Swift E-Mail).

3. Who do you consider to be your main competitors in your market for B&F software products?

The very wide coverage of the product catalogue implies that the company competes with a lot of software houses, but the first companies mentioned by our interviewee were Sopra and Axime (both also mentioned by Sema Group).

B. COMPANY INFORMATION

4. Amount and breakdown of the registered capital:

The Steria group is made up of 23 consolidated subsidiaries and 3 affiliated companies. It operates through Steria SA for France, with a dozen divisions and subsidiaries and through seven foreign subsidiaries for its international activities. Its current registered capital is 300M FF.

Steria Banque is a division of Steria SA.

· *Parent or holding company:*

The main shareholder is Crédit Lyonnais with 30% of the common stock. The other shareholders are financial and industrial institutions (BNP group, Total group) and private individuals.

· *Subsidiaries:*

In addition to its industry sector divisions, the company covers the French territory with 13 regional units and French subsidiaries, all dedicated to information systems and services or telecommunications:

- Ceta, Cort, ECL, IAI, Jade Informatique (dedicated to Bull systems), Logeria, Rebus Communications, Reso Productique, Scod, Sotratec, Steria Delta, Steria Exploitation, Steria Logimation, Steria Nice, Steria Selection and Sysinter.

The company also has shares in Rayon Vert Conseil and Sitintel.

· *In which European countries are you active? Is all your range of products available in France, UK, Germany, Italy and Spain?*

Abroad, the group is present through subsidiaries in Germany, Switzerland, Belgium, Spain, Canada, Ivory Coast and Saudi Arabia (it isn't present in Italy). These subsidiaries market all the range of products and services.

· *Details of any distributors, agents or other commercial arrangements that you may have for marketing your products, and for how long have these been established?*

The group has also been present in the USA for 2 years and in the Far East (Singapore) for 18 months through distributors.

5. What proportion of your revenues are generated in these countries from the B&F sector?

The international business can generate up to 50% of the group revenue in the B&F sector (depending on the annual contribution of large contracts such as the central bank of Saudi Arabia contract).

6. Do you consider that there exist any similarities or synergies between the different country markets in Europe for B&F systems?

The answer is yes for technical applications:

- Swift and Telex networks, information flow handling, EFT and electronic payment field, Videotex and E-Mail.

But it is not true for other application fields that require to tune and match with national practices.

7. What other areas of activity are you involved in?

· *Industry sectors (industrial process, manufacturing, professional services, CIM, etc.)*

· *Software and services sectors*

Steria is involved in all areas of the data processing and telecomms technologies either directly or through subsidiaries:

This refers to:

- Consultancy (Cort, Rayon Vert Conseil),
- Systems engineering (Steria Ingénierie),
- Software development (Steria Développement, Jade Informatique),
- Software packages (Steria Banque, Scod),
- Telecomms and networks (Steria Télecom, Rebus communications),
- Manufacturing (Reso productique),
- Operating systems (Steria Exploitation).

1989 KEY FIGURES BY ACTIVITY

Consultancy	11,0%
Products	22,0%
Engineering	40,0%
Technical Assistance	27,0%

1989 KEY FIGURES BY SECTOR

Services	20,0%
Industry	24,0%
Banking	24,0%
Government/Pub. Services	32,0%

8. Revenues	1989	1990	1991 forecast
Total group (M FF) France/Internat.(%)	880 84%/16%	911 75%/25%	1100 75%/25%
Banking & Finance Sector only (%)	24%	24%	24%
Profit (M FF)	18	20	23
Payroll	1,870	1,950	2,150

C. TRENDS AND ISSUES

9. What do you perceive to be the major problems that B&F institutions are experiencing with regard to software development?

The main needs and preoccupations perceived by our interviewee were:

- Reusable and portable products
- Quality of project management and the methodology of support tools selected to satisfy project needs
- Quality of software maintenance and documentation.

10. In your opinion, what are the areas of highest need?

The areas chosen were:

- Marketing and sales for the B&F activity
- Man/machine interface and interactive communications with networking and multimedia tools
- Cost accounting tools.

11. What do you see as the biggest challenges in this or these areas to the vendors and why?

- *R&D*
- *Marketing (sales, pricing)*
- *Distribution*

- *Support*

- *Others*: None of the above elements appeared to be a challenge to our interviewee. From his point of view, the biggest challenges would be:

  - A good knowledge of the "state of the art" in banking software

  - The skills of the software professionals

  - The difficulties users find in expressing their needs and vendors have in finding practical answers.

12. Where do you see the major opportunities for applications software products?

- *Now and in the future:*

The opportunities should come in the technical applications fields (networking, E-Mail, EFT, flow handling, Videotex and office automation).

13. What is the rôle of applications products for your company?

	% Internal Resources	% Sub-contracting
· Support turnkey systems	yes	n/a
· Support systems integration	yes	n/a
· Support processing services/ systems operations	none	none

STERIA BANQUE doesn't offer any service bureau or facilities management services.

14. What do you see as the major threats to your organisation in the B&F market?

For our interviewee, the main threat in the B&F market could be the competition from the *Big Six* management consultancies and from abroad.

15. What do you see as the major areas of opportunity in the B&F area?

- An international activity should be developed

- New application fields for data processing, presented as a result of new technologies such as multimedia and electronic payment applications.

16. Are they any other trends or issues concerning the B&F market that we haven't already covered?

No.

Appendix:
Italian Interview Reports

INTERVIEW REPORT

DATA MANAGEMENT SpA
Via Paracelso 2,
I-20041 Agrate Brianza (Mi) Italy
+39 6052.1

Mr. Daniele Sinosich

Date of the interview: June 28, 1991

A. BASIC DATA CAPTURE SECTION

1. Which of your software products are targeted at the banking and finance sector

There are a number of products around on which we can build our systems for the Banking and Finance sectors. They can be divided between:

- Retail Banking (15% of group revenues or Lit 11 billion are gained in this area).
- Wholesale Banking (12% of group revenues or Lit 9 billion).

In the Retail area, the main systems are:

- PUMA 2 for electronic funds transfer (EFT).
- ARCA for branch banking.
- Loans system.
- Risk management.
- Cost accounting.

In the Wholesale area, we have:

- FIST, a Kapiti product which is used as a kernel for dealing systems.
- Foreign Exchange.
- SIGEPA, a new product for inter-bank payments.

2. Products description and information

- The four main products are described in the following table.
- Other products were discussed in outline only.

Question 2	Products			
Product Name	PUMA 2	ARCA	FIST	SIGEPA
Brief Description/ Principal Functions: - Back/Middle/Front office	- Standard interface for payments between banks	- Branch architecture. A development tool for branch office applications	- Integration of front-office information from different sources	- Interbank payment orders - customers to/from banks.
- Typical Customisation (%)	- 10% or less; usually taken in standard form	- Parameter driven for user implementation	- Development platform - Normally, 9% of contract is customisation vs. 10% bare FIST	- a form of non-standard EDI for bank payments
	- PUMA 2 competes with two rival products. Between them they have each roughly 33% of the Italian market	- Covers the whole development cycle - Can be installed by Data Management	- Data Management has a team of 20 Professional Services staff doing this.	- Developed using the CASE tools from Delta of Zurich, which the company markets.
Equipment Platforms: (Please specify equipment, e.g., AS/400 and languages supported)	- Mainly any IBM system	- LAN-based product using IBM servers		IBM environments
- Now (IBM) (Digital) (UNIX) (PC)	- m/frame - midrange - Also Bull	- midrange - PC-MS/DOS - OS/2 - Windows and Presentation Mgr.	IBM or open Sysems platforms	
- Planned (NB UNIX)	- No demand	- Probably UNIX later		- No
- Telecomms/Network Capability	- Yes, usual IBM protocols	- WAN interfaces are available	- Yes, basic part of product	Yes, integral
Product Origin/history: - Date of introduction	1985	1989	1989	1991

Question 2 (Cont'd)	Products			
Product Name	PUMA 2	ARCA	FIST	SIGEPA
Marketing channels: (Please specify numbers) - Direct Sales Force/# - Agents/# - Distributors/#	- most important channels - Cooperative of of savings banks (SECETI)	- direct sales in Italy - Perhaps IBM will badge the products and sell it outside Italy	- direct to banks and corporate customers - Use subsidiary LGS to sell the product	- direct to banks and corporate customers
Target Markets: - Organisation - Client type	- Banks, large and small - General and DP management	- Banks in Italy -IS management	- Banks and corporations with Treasury and/or International departments.	- Large/ medium sized banks of which 100 maximum; content with 20 sales in 5 years.
Licensing arrangements/	- 1-time fee plus maintenance - fee Lit 500M.	- Lit 40 million - fee function of no. of branches using	- Lit 100M. and upwards.	- Lit 500M.
Installed Base - Total - Europe - France - Germany - UK - Italy - Spain	 110 - - - 110 contracts -	? ?	? ?	- Under test for installation in next 12 months - Under test

3. Who do you consider to be your main competitors in your market for B&F software products?

IBM, Systems & Management, Engineering, Bull (little)

B. COMPANY INFORMATION

4. Amount and breakdown of the registered capital:

Lit 13 billion.

· *Parent or holding company:*

- Credito Italiano	48%
- Finsiel	29
- Bull	16
- Olivetti	4
- IRI	3

· *Subsidiaries:*

Logica General Systems -LGS (60%; 40% is owned by Logica plc of the UK) which itself has 2 subsidiaries:

- GSO Informatica (70% LGS; 30% Telettra),
- LGS SG (75% LGS; 25% Dun & Bradstreet Software).

· *In which European counties are you active? Is all your range of products available in*

Only Italy.

· *Details of any distributors, agents or other commercial arrangements that you may have for marketing your products, and for how long have these been established?*

- The Logica arrangements have been in place since the mid-1980s.
- The company distributes CASE tools from Software Technologie AG of Zurich - DELTA is a lower-CASE and DAFNE an upper-CASE tool.

5. What proportion of your revenues are generated in these countries from the B&F sector?

Over 56% of group revenues, i.e., Lit 42 billion out of Lit 75 billion for 1990.

6. Do you consider that there exist any similarities or synergies between the different country markets in Europe for B&F systems?

In practice, Italian banking is very different from that of other EC countries with maturer markets. It will take five to ten years to catch up and become similar.

7. What other areas of activity are you involved in?

- Industry sectors (industrial process, manufacturing, professional services, CIM, ...)
  - Manufacturing (18% of group revenues)
  - Public administration (6%)
  - Retail (2%)
  - Other sectors including Telecommunications (18%).
- Software and service sectors

  Data Management also runs a number of cross-industry activities; as part of the parent company:
  - Payroll and Human Resources (known as SIP) services
  - Office equipment including an automated stenographer system for text input in courts, schools and parliament
  - Processing services (known in Italy as CED) including service bureau, back-up and disaster recovery, and facilities management.

  Other areas of group activity are:
  - Quality systems for industry
  - Security systems
  - Database software consultancy.

8. Financial Information

Revenues in Lit billion	1989	1990	1991 forecast
Parent company Domestic/Internat.(%)	Lit 54.5 B 100%	Lit 54.0 B 100%	Lit 57.5 B
Banking & finance sector only (%)	54%	56%	56%
Profit (loss) before tax	(5.6)	NA	-
Payroll-staff	-	360	360
Group - revenues	NA	Lit 75.0 B	Lit 80 B
- staff	-	720	720

C. TRENDS AND ISSUES

9 What do you perceive to be the major problems that B&F institutions are experiencing with regard to software development?

In Italy there is a need to reach the mean European levels, for banking automation. For instance, the average banking 'spread' is 7% in Italy, as opposed to 2% to 4% in other European countries and 0.7% in Japan. This indicates an inability to face competition when it comes. Already Deutsche Bank and Credit Lyonnais, to name only two, are setting up shop in Northern Italy.

10. In your opinion, what are the areas of highest need?

- Branch systems
- Foreign cash anticipation, e.g., zero balancing
- Financial services for customers, currently ruled out by banking regulations

11. What do you see as the biggest challenges in this or these areas to the vendors and why?

- R&D - Developing products on the back of ongoing projects
- Marketing (sales, pricing) - Gearing up to meet competition - alliances

- Distribution - Already adequate - a strength
- Support - Creating a climate for independant software maintenance

12. Where do you see the major opportunities for applications software products?

- *Now and in the future:*
  - Will use the B&B Millenium product for setting up customer-orientated Financial Services.

13. What is the rôle of applications for your company?

Products must be our strategic application platforms.

· Support turnkey systems	- Not very active here	
· Support systems integration	- Would need partners	
· Support processing services/ Systems operations	- Important for the longer-term future where banks will be looking for value-added services delivered over an improved network infrastructure.	

NB. Data Management claims to have the largest data center of any professional services company in Italy.

- The present state of change leading to interest in Italian companies on the part of French or U.S. companies
- Italian vendors are reaggregating for critical mass
- If the market 'grows up' too quickly local companies will not be able to invest fast enough to meet demand.

15. What do you see as the major areas of opportunity in the B&F area?

- Internationalisation by covering the IBM banking market with products.

16. Are there any other major trends or issues concerning the B&F market that we haven't already covered?

No.

INTERVIEW REPORT

DATITALIA PROCESSING SpA
Via Giovanni Porzio 4,
Isola G No 5, Centro Direzionale,
I-80143 NAPOLI Italy
39 81-787 7005

Ing. Maccarone, Marketing Manager (Banking)

Date of the interview: June 20, 1991

A. BASIC DATA CAPTURE SECTION

1. Which of your software products are targeted at the banking and finance sector

Our main work is the development and implementation of software projects and we therefore have very few products as such. The table includes examples for our large projects which could be used as a basis for other banks.

2. For each of these products I would just like to obtain some basic information? (See attached table).

Is it possible for you to send me any brochures or other literature on these products?

There is this list of important projects: Amadeo; Sara; Reporting Direzionale; Progetto Estero; Gestion Borsa e Titoli; Terminalista Cassiera.

Question 2	Products		
Product Name:	"Banca Data Amadeo per Nominativi Protestato"	"Sara" Software Product	"Reporting Direzionale"
Brief Description/ Principal Functions:	Data Bank of names of people who have been prosecuted for financial crimes.	Enables one to to read/print etc. "Amadeo Data bank"	Gathers data of varous procedures and creates a 'Report' of 50 pages (incl. Graphics) - Synthesis of banks activity
- Back/Middle/Front Office	- Back office		- Back office 80%
Equipment Platforms: Please specify equipment, e.g., AS/400 and languages supported	Available on magnetic tape* or via a joint venture with S.E.A.T, who distribute it on-line- Videotel -> PC	PC (MS DOS)	
- Now (IBM) (Digital) (UNIX) (PC)	Videotel 100 % PC	IBM 4003 3000 AS/400 Langs: DOS/ OS400/ MVS/PL1/ COBOL	100% PC
- Planned (NB UNIX)	NO		No change planned
- Telecomms/Network Capability	YES	YES	NO
Product Origin/history: - Date of introduction	1984	1984	1987

Question 2 (Cont'd)	AMADEO	SARA	REP. DIREZ.
Marketing channels: (Please specify numbers) - Direct Sales Force/# - Agents/# - Distributors/# - Alliances/#	Sales Force Not specialised; able to sell all products listed 25 (7 branches) 5	Ditto	Ditto
Target markets: - Organisation - Client type	Banks & Financial Institutions	Ditto	
Licensing arrangement/fee:	Tape: Lit 1.9 million per month) Depends on use of terminal	Depends on use of terminal	Lit 40 million one off fee.
Installed Base - Total - Europe - France - Germany - UK - Italy - Spain	3,000 3,000	3,000 3,000	4 4

Question 2 cont'd	Products		
Product Name:	"Progetto Estero" (Foreign/overseas project)	"Gestione Borsa e Titoli" (Stock exchange & shares management	"Terminalista Cassiera" (Cashier terminals)
Brief Description/ Principal Functions:	Management by teleprocessing of all operations of foreign business in head offices & branches	Integrated management of portfolio & client services	Workstation linked to network for integrated management of typical activities of bank counters (product is for each terminal)
- Back/Middle/Front Office	Back & front	Back & front	
Typical Customisation (%)	80%	80%	30%
Equipment Platforms: Please specify equipment, e.g., AS/400 and languages supported)	IBM 3081 MVS/IMS/ DL1/PL1	IBM 3081 MVS/IMS/DL1/ PL1	PC (IBM) MS DOS
(IBM) - Now (Digital) (UNIX) (PC)	100% IBM	100% IBM	100% IBM
- Planned (NB UNIX)	100% IBM	Ditto	Ditto
- Telecomms/Network Capability	YES	YES	YES
Product Origin/history:	Commissioned by bank	Commissioned by bank	
- Date of introduction	1984	1989	1987

Question 2 (Cont'd)	PROG. ESTERO	GEST. BORSA	TERM. CASS.
Marketing channels: (Please specify numbers) - Direct Sales Force/# - Agents/# - Distributors/# - Alliances/#	Ditto	Ditto	Ditto
Target markets: - Organisation - Client type	Ditto	Ditto	Ditto
Licensing arrangements/fee:	Depends	Depends	Depends on number of terminals Lit 300 million + 2 million for each workstation/terminal
Installed Base - Total - Europe - France - Germany - UK - Italy - Spain	1 1	1 1	5 5

B. COMPANY INFORMATION

I would just like to obtain some general information about your company.

4. Can you please tell me about the ownership of the company; who are the principal shareholders?

70% Banco Di Napoli
30% Olivetti.

Is there a parent or holding company?

Banco Di Napoli.

What subsidiary companies do you have?

None.

In which European countries are you active?

None.

Can you please supply details of any distributor, agents or other commercial arrangements that you may have for marketing your products, and for how long have these been established?

S.E.A.T. sells the Amadeo databank (since 1984). We sell other companies' products but they don't sell ours.

5. What proportion of your revenues are generated from the Banking & Finance sector?

50%.

6. Do you consider that there exist any similarities or synergies between the different country markets in Europe for Banking & Finance systems?

Next year, 1992, there will have to be the same operations in all different countries. There is the difficulty of unifying the system. The economic union is a problem.

7. What other areas of activity are you involved in?

Industry Sectors

All industry sectors - for integrated projects - implementations - aided by CAD/CAM.

Software and Services Industry Sectors.

8. What has been your recent history over the last couple of years?

	1989	1990	Forecast 1991
Total Revenue	Lit 49 B	Lit 52 B	NK
Net Profit		Lit 3 B (before tax)*	
Banking and Finance sector only		Lit 26 B (Lit 1,704,000,000 after tax)	

C. TRENDS AND ISSUES

I would now like to ask you one or two questions concerning your views of significant trends that you are experiencing in the market for Banking & Finance sector application products.

9. What do you perceive to be the major problems that banking and finance institutions are experiencing with regard to software development?

The modernisation and integration of the various procedures.

10. What are the areas of highest need, in your opinion?

- Inter-bank communication procedures
- Document processing.

11. What do you see as the biggest challenges in this area to you, the vendor and why?

- *R&D:* In our opinion its principal method should be the development of innovative products. We are not interested in old products on old machines, but in a new future with new products.

- *Marketing:*
  - Sales
  - Pricing
  - Getting the corporate image known

Distribution -

Support -

12. Where do you see the major opportunities for applications software products?

Now: Integration and telecommunications

In the future: Document processing

13. What is the role of applications products for the company?

They have a very small/secondary role. Our main work deals with projects.

Supports systems integration on turnkey systems products.

We have a service centre and we do systems integration.

Supports processing services/systems operations.

14. What do you see as the major threats to your organisation in the Banking & Finance market?

The speed of evolution of technology; systems soon become obsolete.

15. What do you see as the major areas of opportunity in the Banking & Finance area?

Document processing/knowledge-based systems.

16. Are there any other major trends or issues concerning the Banking & Finance market that we have not already covered?

The war.

INTERVIEW REPORT

Engineering Ingegneria Informatica SpA
Via Marghera, 51,
I-00185 Roma, Italy
+ 39.6.44.53.230

Dottoressa Chiara Sebastiani,
Director of Communications

A. BASIC DATA CAPTURE SECTION

1. Which of your software products are targeted at the banking and finance sector

- Basically, we do not have any home-grown or acquired packages. The parts of our systems which carry over from one project to another are:
  - System kernels,
  - Documentation.
- We use a set methodology, developed in-house called METHIS. Ten percent of our systems are produced using CASE tools - principally to help with the system organisation and the people management.
- This applies to our work in the banking sector as well as to other areas.
- Non-banking products for which we have a licence are:
  - Administration of foreign equity/stocks (from MIS of the U.K.)

2. Products description and information

- We produce all types of banking systems for a number of major banks and lesser banks, including Banca d'Italia, Banco di Sicilia and several Banca Populare.
- There is not so much distinction in Italy between retail and wholesale banks. We produce systems to cover most applications.
- International banking is relatively underdeveloped in Italy.

- We are undergoing a cultural change among our almost 500 staff, with an increasing emphasis being put on consulting. I believe Engineering is only responding to the new market demands like other software companies.

- We need a more professional, and less of a technical, image in order to be able to charge the sorts of fee rates which are necessary for profitability. The newly formed Consultancy section will need to become a proven profit centre. At present, it is relatively untried.

3. Who do you consider to be your main competitors in your market for B&F software products?

Andersen Consulting sets the pace for all Italian consulting and software firms. More immediate competitors are the second tier companies such as Data Management and Systems & Management. Many of our competitors are owned partly by Italian banks.

B. COMPANY INFORMATION

4. Amount and breakdown of the registered capital:

60% of the capital is owned by our own management. IBM, Italmobiliare and Paribas all have minority shareholdings of around 10%.

- *Parent or holding company*

See above.

- *Subsidiaries*

Softab 2 Srl
Softlab SpA
Isediform SpA
Twineng.

- *In which European countries are you active? Is all your range of products available in them?*

Italy only - but very interested in local collaborative projects with like-minded vendors in other countries.

- *Details of any distributors, agents or other commercial arrangements that you may have for marketing your products, and for how long have these been established?*

Markets CASE products of Transform Logic Corporation (a U.S. vendor).

5. What proportion of your revenues are generated in these countries from the B&F sector?

Over 50% of all revenues.

6. Do you consider that there exist any similarities or synergies between the different country markets in Europe for B&F systems?

Exactly the same; the survey of 100 articles culled from magazine articles worldwide claims this to be confirmed after analysis of 25 of these.

7. What other areas of activity are you involved in?

- *Industry sectors (industrial process, manufacturing, professional services, CIM,...)*
- Beside banking, the revenue breakdown has three other significant sections:
  - Business services 17%
  - Industry, general 11%
  - Public sector 16%.
- *Software and services sectors*
- Marketing CASE tools.
- Processing and telematics services in our subsidiaries.

8. Financial Information

	1989	1990	1991 Forecast
Revenues Total main company Domestic/Internat.(%)	Lit 39.4 B 99%/1%	Lit 45.0 B 99%/1%	Lit 52.0 B 99%/1%
Banking & Finance sector only (%)	56% = Lit 22.1 B	54% = Lit 24.3 B	52% = Lit 27.0 B
Profit ( )	Not stated	-	-
Main company - staff	400	450	480
Revenues Total Group	-	Lit 67.0 B	Lit 75 B
Group Staff	-	685	750

C. TRENDS AND ISSUES

9. What do you perceive to be the major problems that B&F institutions are experiencing with regard to software development?

- Problems have risen to the level of the Director General in the last two years

- IT strategies are not implemented by information professionals who will have to maintain them. Tendency to walk away from problems.

10. In your opinion, what are the areas of highest need?

- Consultancy to design projects correctly from the start.

- Many banks believe they should scrap their old systems which are too complex and start again with a new design. Only Banca San Paolo in Turin has so far had the courage to do this.

11. What do you see as the biggest challenges in this or these areas to the vendors and why?

- R&D - To move from 'body-shopping' into having products.

· Marketing (sales, pricing) - Need two organisations to deal with (a) traditional services and (b) new "hi-tech" areas such as consultancy.

· Distribution - In Italy the regionalised structure of the banking sector is mirrored by a regionalised software services structure. We work through the small local software houses if selling to the smaller local banks.

· Support - We have in hand an R&D project to develop a methodology to provide software maintenance consultancy

12. Where do you see the major opportunities for applications software products?

· *now and in the future:* Consultancy on an individual basis will highlight the requirements.

13. What is the rôle of applications products for your company?

So far no real role envisaged in the Professional Services area.

	% Internal	% Subcontracting
· Support turnkey systems	-	} Would rely on
· Support systems integration	-	} IBM, Tandem, etc.
· Support processing services/systems operations	Can support	-

14. What do you see as the major threats to your organisation in the B&F market?

- Slowdown in bank spending due to lack of clear directions

- Competition from abroad.

What do you see as the major areas of opportunity in the B&F area?

- Positive about all areas.

- Consultancy is the key.

16. Are there any other major trends or issues concerning the B&F market that we haven't already covered?

No.

COMPANY PROFILE

FINSIEL SpA
Via Isonzo 21/B
I-00198 - Roma
Italy
Tel: 39 6 84311/851505
Fax: 39 6 84312236

CEO: Alessadro Alberigi Quaranta
MD: Dott. Vittorio Salvati
Status: Subsidiary
Number of Employees: 5,400
Revenue (FYE 31-12-90): Lit 1000 billions est.

The Company

The Finsiel Group was started in 1969 as ITALSIEL; in 1981 the Group was reorganised within a holding structure and the Finsiel name was introduced.

Finsiel is owned by the Italian State via IRI (83.3% of shares) and Banca d'Italia (16.7% of shares).

IRI is the holding company for the very large group of companies owned by the State in Italy; Banca d'Italia is the central bank.

The Group is based on 14 companies: as shown in the table on the next page.

Exhibit A

GROUP COMPANIES

Name	Shareholders	Percent
ITALSIEL	IRI Finsiel	49.1 17.7
Insiel	Finsiel Others	52.0 48.0
I C Soft	Finsiel	100.0
Sibi	Finsiel Others	35.0 65.0
Netsiel	Finsiel Italsiel	30.0 70.0
SISPI	Finsiel IRI	47.0 2.0
Datasiel	Finsiel IRI Others	49.0 2.0 49.0
Intersiel	Finsiel	50.0
Sogei	Finsiel	100.0
Tecsiel	Finsiel Italsiel Sogei	40.0 30.0 30.0
Informatica Trentina	Finsiel	41.0
Agrisiel	Finsiel IRI	49.0 6.0
G.I. Informatica	Finsiel IRI	40.0 60.0
Softsiel (U.S.)	Finsiel Italsiel IC Soft Tecsiel	15.0 15.0 15.0 55.0

The Finsiel Group has shareholdings in the following companies:

Exhibit B

MINORITY HOLDINGS

Name	Capital (Lit B)	Shareholding (Percent)
Telesoft	9.0	40.0
Venis	0.25	40.0
Data Management	15.0	29.0
Tecnoporti	0.5	25.0
Sistemi e Telematica Porto di Genova	0.5	5.0
Castalia	5.0	5.0
Ancifap	26.7	0.2
Comitsiel (Italsiel)	2.0	40.0
Saped (Italsiel)	1.0	20.0
SIT (Insiel)	0.2	10.0
Edindustria	0.2	9.5
BIC Napoli (IC Soft)	1.0	7.0
Racom Teledata (Italsiel)	65.0	5.0

Finsiel launched a joint venture with SIP-STET (the Italian telecomms companies) called TELESOFT, with the purpose of developing telecommunications software for the Italian network system. Finsiel controls 40% of the shares and forecasts Telesoft to have over 1,000 employees and Lit 100 billion turnover by the end of 1991.

In October 1988, Finsiel signed an agreement of cooperation for software development and education in the U.S.S.R.; contacts are now being developed for possible expansion in the Cyprus and Spanish markets.

Strategy

Expansion is carried out through the formation of joint ventures with customers. Once the joint venture company is established, it moves from providing services to the original customer to serving the general market.

Finsiel invests over 15% of its revenues in R&D and in training of its own personnel.

The recent drive for expansion by Finsiel from the government market into the private sector is considered one of the major factors reinforcing the recent trends in the Italian IS industry.

Key Products and Services

The main activities of the Finsiel Group are, in order of importance:

- Processing Services and Systems Operations

This service category includes a percentage of network services that could not be quantified. Finsiel operates several systems that belong to its clients. One of its subsidiaries in Milan, Data Management, also offers disaster recovery and systems operations services.

- Professional Services

Design, development and implementation of information systems, mainly for public authorities, consulting services, training and education. Finsiel uses the Dafne methodology which it has developed in-house. According to the company, this fosters an integrated decentralisation of activities which increases software productivity and quality.

- Software Products

These are advanced applications and expert systems for industrial automation and graphic data processing, systems software products and software engineering methodologies and tools.

- Turnkey Systems/Systems Integation

Design, implementation and operation of complex inter-sector systems.

Market Analysis

Exhibit C

1990 MARKET ANALYSIS BY DELIVERY MODE (Lit BILLIONS)

DELIVERY MODE	REVENUE	PERCENT
Software Products	8	1
Professional Services	378	49
Processing Services and Systems Operations	377	49
Systems Integration	3	1
TOTAL SOFTWARE & SERVICES	**766**	**100**
Equipment	194	
Other revenues (interest, etc.)	40	
GRAND TOTAL	**1000**	**100**

Exhibit D

1990 MARKET ANALYSIS BY INDUSTRY SECTOR (Lit BILLIONS)

INDUSTRIAL SECTOR	REVENUE	PERCENT
Central Government	460	60
Local authorities	115	15
Discrete manufacturing	76	10
Banking	61	8
Others	54	7
TOTAL SOFTWARE & SERVICES	**766**	**100**

Finsiel is also active in the U.S. market with its subsidiary Softsiel, which supports software systems products that are marketed by distributors.

INPUT estimates that approximately Lit 765 billion of Finsiel's revenues in calendar year 1990 were generated from the computer software and services market within Western Europe.

Financial Information Exhibit E

FIVE-YEAR FINANCIAL SUMMARY (FYE 31-12) (Lit BILLIONS)

YEAR	1986	1987	1988	1989	1990*
Revenues	455	575	699	900	1000
Annual Growth Rate	-	26%	22%	29%	11%
Profit before Taxes	NA	NA	43.0	37.2	-
Profit after Taxes	NA	17.7	21.6	17.3	-
% Net Profit	3.1%	3.1%	1.9%	-	

**INPUT estimates.*

INTERVIEW REPORT

SYSTEMS & MANAGEMENT SpA
Via Brisa, 3;
I-20123 MILANO, Italy
39 2 86 63 41

Ing. Ch. Costa, Marketing Manager
Sr. Carlo Pedroni, Development Director

A. BASIC DATA CAPTURE SECTION

1. Which of your software products are targeted at the banking and finance sector

The nine most important products are analysed in the tables below.

We also undertake specific projects for individual banks involving tailored software or technical assistance in the form of professional staff hire.

Question 2	Products			
Product Name	ACTION 2000 [Line of Products]	GELFI	SIM	CREDITEX
Brief Description/ Principal Functions:	[THORN EMI Software License] Products for ATM, POS and bank self service terminal management	Product for electronic management of exchange rates security management	Product for security, stock market order, personal estate, interbourse	(Via French Bank licence) Products for consumer credit management
- Back/Middle/Front office	- Front & back office	- Front office	- Back office	- Front & back office
- Typical Customisation (%)	- 10%	- 30%	- 30%	- 0%
Equipment Platforms: (Please specify equipment, e.g., AS/400 and languages supported) - Now (IBM) (Digital) (UNIX) (PC) - Planned (NB UNIX) - Telecomms/Network Capability	IBM 30XX TANDEM	IBM 3090 + PC MS/DOS	IBM 3090 PC LANS	IBM 3090 (+MINITEL)
Product Origin/history: - Date of introduction	1991 (In Italy)	1990	1991	1991 (In Italy)

Question 2 (Cont'd)	Products			
Product Name	ACTION	GELFI	SIM	CREDITEX
Marketing channels: (Please specify numbers) - Direct Sales Force/# - Agents/# - Distributors/# - Alliances/#	Yes (100%)	Yes	Yes	Yes
Target Markets: - Organisation - Client type	Banking	Banking	Banking & Insurance	Banking
Licensing arrangements/	$40,000 – 400,000	$50,000 – 150,000	$20,000 – 300,000	$80,000
Installed Base - Total - Europe - France - Germany - UK - Italy - Spain	- -	1 1	1 1	- -

Question 2	Products			
Product Name	TITOLI	CREDITI	TEBE	SITI
Brief Description/ Principal Functions:	Product for securities management (Italy)	Product for special credit, credit management (Personal, small business and land credits loans)	Product for accounting management of transactions and cash balance between banks	Product for monetary base regulation and legal reserve mgmt.
- Back/Middle/Front office	- Back office	- Front & back office	- Back office	- Middle office
- Typical Customisation (%)	- 0%	- 40%	- 10%	- 0%
Equipment Platforms: (Please specify equipment, e.g., AS/400 and languages supported) - Now (IBM) (Digital) (UNIX) (PC) - Planned (NB UNIX) - Telecomms/Network Capability	BULL DPS6/7	IBM 3090	IBM 3090 BULL DPS 8	IBM 3090
Product Origin/history: - Date of introduction	1984/ 1990	1986	1983	1986

Question 2 (Cont'd)	Products			
Product Name	TITOLI	CREDITI	TERE	SITI
Marketing channels: (Please specify numbers) - Direct Sales Force/# - Agents/# - Distributors/# - Alliances/#	Yes	Yes	Yes	Yes
Target Markets: - Organisation - Client type	Banking	Banking	Banking	Banking
Licensing arrangements/	$40,000 –	$120,000 – 80,000	<$100,000 300,000	$150,000 - 250,000
Installed Base - Total - Europe - France - Germany - UK - Italy - Spain	52 52	18 18	58 58	32 32

Question 2	Products			
Product Name	SIPS	CHECK	GEPE	MINERVA
Brief Description/ Principal Functions:	Product for wholesale channel regulation and clearing on national basis	Product for managing bank draft and cheque cut off	Product for the linkage between information systems for banks and SITRAD network	Bank Italia statutory report
- Back/Middle/Front office	- back office	- Back office	- Back office	
- Typical Customisation (%)	- 0%	- 0%	- 0%	- 0%
Equipment Platforms: (Please specify equipment, e.g., AS/400 and languages supported) (IBM) - Now (Digital) (UNIX) (PC) - Planned (NB UNIX) - Telecomms/Network Capability	IBM 3090 Yes	IBM 3090	IBM 3090 Yes	IBM 3090 Bull DPS 7/8 BS2000 AS/400 IBM Unisys A Series Planned UNIX
Product Origin/history: - Date of introduction	1988	1989	1990	1987

Question 2 (Cont'd)	Products			
Product Name	SIPS	CHECK	GEDE	MINERVA
Marketing channels: (Please specify numbers) - Direct Sales Force/# - Agents/# - Distributors/# - Alliances/#	Yes	Yes	Yes	Yes Yes
Target Markets: - Organisation - Client type	Banking	Banking	Banking	Banking
Licensing arrangements/	$50,000-100,000	$50,000-80,000	<$80,000	$60,000 – 100,000
Installed Base - Total - Europe - France - Germany - UK - Italy - Spain	15 15	10 10	8 8	70 70

Question 2	Products			
Product Name	ARTIS			
Brief Description/ Principal Functions: - Back/Middle/Front office - Typical Customisation %	Product for customer profile and relationship analysis - Back office - 0%			
Equipment Platforms: (Please specify equipment, e.g., AS/400 and languages supported) - Now (IBM) (Digital) (UNIX) (PC) - Planned (NB UNIX) - Telecomms/Network Capability	IBM 3090			
Product Origin/history: - Date of introduction	1991			

Question 2 (Cont'd)	Products			
Product Name	ARTIS			
Marketing channels: (Please specify numbers) - Direct Sales Force/# - Agents/# - Distributors/# - Alliances/#	Yes			
Target Markets: - Organisation - Client type	Banking			
Licensing arrangements/	$80,000 – 100,000			
Installed Base - Total - Europe - France - Germany - UK - Italy - Spain	2 2			

3. What do you consider to be your main competitors in your market for Banking & Finance Software products?

IBM

Andersen Consulting.

B. COMPANY INFORMATION

I would just like to obtain some general information about your company.

4. Can you please tell me about the ownership of the company, who are the principal shareholders?

Finsystems SpA - 70%

Private shareholders - 30%

Is there a parent holding company?

Systems & Management is the parent holding company of the S&M group.

What subsidiary companies do you have?

See Exhibit A.

In which European countries are you active?

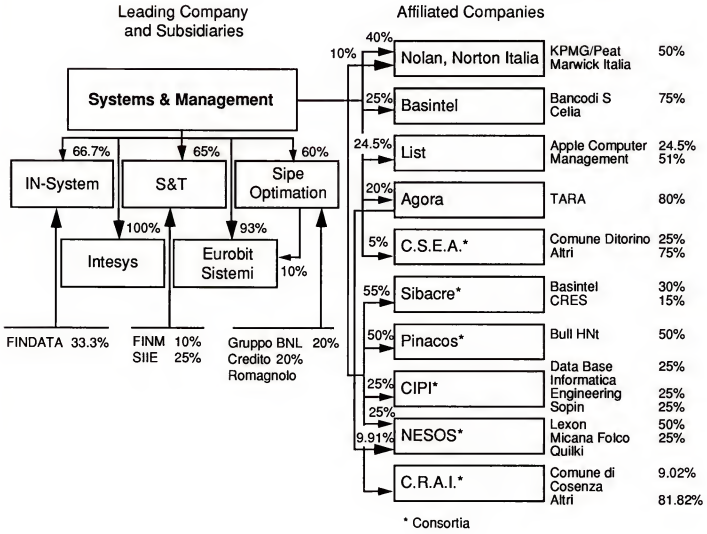
Italy.

Can you please supply details of any distributors, agents or other commercial arrangements that you may have for marketing your products, and for how long have these been established?

Group annual review describes the increasingly complex web of relationships with firms and academic institutes, both at home and overseas.

Exhibit A

S&M Group Structure



5. What proportion of your revenues are generated in these countries from the Banking & Finance sector?

47% Italy.

Do you consider that there exist any similarities or synergies between the different country markets in Europe for Banking & Finance systems?

Yes, we are looking for products distribution on new or advanced application areas and partnerships/alliances.

7. What other areas of activity are you involved in?

Industry Sectors

- Central and local government

- Manufacturing

- Retail companies

Software and Services Industry Sectors.

· Systems software products

· Turnkey systems

· Professional services

· Training and education

· Systems operations

· Systems integration projects

8. Revenues

SYSTEMS & MANAGEMENT PARENT ONLY (Lit B)	1988	1989	1990	Prediction 1991
Total Revenue	26,4	30,8	31,7 Est.	33 Est.
Net Profit (*)	1,5	1,8	1,7 Est.	-
Banking and Finance Sector only			15,0	160 Est.
Group - Revenues	NA	NA	83.4	-
- Staff			600	

(*) Gross profit including reserve funds for R&D.

C. TRENDS AND ISSUES

I would now like to ask you one or two questions concerning your views of significant trends that you are experiencing in the market for Banking & Finance sector application products.

9. What do you perceive to be the major problems that banking and finance institutions are experiencing with regard to software development?

- New information systems by major rewrite of the old ones while coexisting with the previous ones.

10. What are the areas of highest need, in your opinion?

- External information integration: i.e., between information providers and dealing systems
- Operational data for marketing and management control
- Automated branches.

11. What do you see as the biggest challenges in this area to you, the vendor and why?

R&D

Marketing · *Sales* To define market areas to be involved in.

· *Pricing*

Distribution

Support To add value to the packages and to be updated on all new application requirements.

12. Where do you see the major opportunities for applications software products?

Now: In three areas listed in point 10.

In the future:

13. What is the role of applications products for your company?

Strategic in the sense of:

- Easy entry into the customer environment

- Makes for higher margin on systems.

Supports systems integration or turnkey systems products.

We are looking at systems integration.

Supports processing services/systems operations.

Processing services.

14. What do you see as the major threats to your organisation in the Banking & Finance market?

Establishment of software companies with a new and strong approach to relationships and links with large public banks and/or IBM.

15. What do you see as the major areas of opportunity in Banking & Finance area?

Rewriting the banks' information systems, based on new technological and application architecture (Client - server approach).

16. Are there any other major trends or issues concerning the Banking & Finance market that we have not already covered?

No.

Appendix:
Spanish Interview Reports

INTERVIEW REPORT

CIBERNOS
Vizconde de Matamala, 7,
28028 Madrid, Spain
33.1.355 7603/355.9400

Sr. Alvaro Savedra, Marketing Manager

A. BASIC DATA CAPTURE SECTION

1. Which of your software products are targeted at the banking and finance B&F sector

- Some 55% of our revenues are earned with financial institutions, but none of this is in the software products area, except distributing well-known PC software programs.
- Our main business lines are:
  - General and specialist processing services (52%)
  - Provision of PCs and standard PC software products (20%)
  - Consultancy and tailored software development (18%)
  - Training institute (10%).

2. Products description and information

Development services offered to banks include the following applications:

- Share transaction processing
- Pension fund processing
- Credit card processing
- Credit scoring
- Investment portfolio management

Processing services include:

- Disaster recovery
- Block time leasing

· Videotex communications

· Laser printing

· Specialist cheque reading/sorting services.

30 major foreign and domestic banks are our customers.

3. Who do you consider to be your main competitors in your market for B&F software products?

CCS
Ibermatica
Ceinsa

B. COMPANY INFORMATION

4. Amount and breakdown of the registered capital:

Founded in 1964, with capital now of 35 million ptas.

450 staff

Private ownership

· *Parent or holding company :*

Cibernos SA.

· *Subsidiaries*

- Instituto Cibernos - Training
  - Distributor of SETG, a U.K. CBT training package
- Ciberdata - Specialist OCR reading/sorting bureau with microfilm capabilities
- Ciberland - PC hardware/software distibutorship
- Setesa - Direct Mail/Marketing bureau with expertise in digitisation, Expert Systems training and AI.

· *In which European countries are you active? Is all your range of products available in all?*

Spain only.

· *Details of any distributors, agents or other commercial arrangements that you may have for marketing your products, and for how long have these been established?*

- Our policy is to have our own branch network covering all Spain's major towns and cities.

5. What proportion of your revenues are generated in these countries from the B&F sector?

- 54%

6. Do you consider that there exist any similarities or synergies between the different country markets in Europe for B&F systems?

No overseas experience, but we act for international banks, e.g. Citibank, in Spain.

7. What other areas of activity are you involved in?

· *Industry sectors (industrial process, manufacturing, professional services, CIM, ...)*

- Public authorities are	20% of revenue
- Large industrials	16%
- Others	10%
	46%
- B&F	54%
	100%

- *Software and services sectors*

See answer to question 1.

8. Revenues	1989	1990	1991 Forecast
Total group ( ) Spain/Internat. (%)	2,100 M ptas 100%	3,000 M ptas 100%	3,750 M ptas 100%
Banking & Finance sector only (%)	54%	54%	50% +
Profit ( )	NA	NA	NA
Payroll	450	600	-

C. TRENDS AND ISSUES

9. What do you perceive to be the major problems that B&F institutions are experiencing with regard to software development?

Finding suitable consultancies.

10. In your opinion, what are the areas of highest need?

- Planning strategically
- Image processing

11. What do you see as the biggest challenges in this or these areas to the vendors and why?

- *R&D* - We continue to invest in high-tech. specialist areas
- *Marketing (sales, pricing)*
- *Distribution* - Need countrywide network
- *Support* - An organisational issue

12. Where do you see the major opportunities for applications software products?

- *Now and in the future*:
  - Basic commercial systems for Spanish banks
  - Communications products

13. What is the rôle of applications products for your company?

They are an integral part of our services.

	% Internal Resources	% Sub-contracting
· Support turnkey systems		
· Support systems integration		
· Support processing services/systems operations		Our strength

14. What do you see as the major threats to your organisation in the B&F market?

New entrants to Spain from overseas.

15. What do you see as the major areas of opportunity in the B&F area?

Consultancy and training are perennial opportunities

Image processing system
- Consultancy
- Turnkey implementation

16. Are there any other major trends or issues concerning the B&F market that we haven't already covered?

No.

INTERVIEW REPORT

EnWare SA
Calle Barquillo, 30,
28004 Madrid, Spain
34.1 522 8476

Sr. José Villagran Núñez,
Director Marketing & Communications

Sr. Gonzalo López Echagüe,
Senior Consultant Financial Services Division

A. BASIC DATA CAPTURE SECTION

1. Which of your software products are targeted at the banking and finance sector

Applications products - ENWTRADE

System software products - AFUNC } } CASE tools
- TELEUSE }

Most of our work is project work and often on customer site. Three examples are:

(1) Radio-Bolsa - which broadcasts price/volume and trends information from Spanish stock markets to banks and brokers

(2) CATS - trading system for the body regulating the four Spanish stock exchanges - allows people to trade with the exchanges (according to the Spanish system) - involves automatic matches of orders and tenders (at 80-85% level by volume)

(3) Converting CATS from PC to PC + Windows 3.0 or to UNIX workstation.

2. Product description and information

Now tending to develop products for repeat sales situations, i.e., - ENWTRADE from CATS
- Communications products for Banks etc.

See the table below for details.

Question 2	Products			
Product Name	ENWTRADE	Communications systems for banks	AFUNC	TELEUSE
Brief Description/ Principal Functions: - Back/Middle/Front office - Typical Customisation (%)	Handles trading with stock exchanges Front 25%	To convert the communications from batch to real-time NA 50% - 100%	Lower CASE tool for:- Sweden · Documentation · Report generation · Source code generation NA	Upper CASE tool from NA
Equipment Platforms: (Please specify equipment, e.g., AS/400 and languages supported) - Now (IBM) (Digital) (UNIX) (PC) - Planned (NB UNIX) - Telecomms/Network Capability	Engineering workstation UNIX VMS SNA and X.25	All IBM platforms - Yes	RISC machines Digital or Novell networking Yes	
Product Origin/History: - Date of introduction	Sept. 1991	Ongoing for 12 months	1988	1987

Question 2 (Cont'd)	Products			
Product Name	ENWTRADE	Communications Systems for Banks	AFUNC S/WARE	TELEUSE
Marketing channels:				
(Please specify numbers)				
- Direct Sales Force/#	Sell through Stock Exchange	Yes, sell through 3 salesmen		
- Agents/#				
- Distributors/#				
- Alliances/#	3			
Target Markets:				
- Organisation	Banking sector	Banks/Brokers	Any sector customer	
- Client type	General	IS management management	IS managers	
Licensing arrangements/	To be decided	Individual quotation	1-off initial fees for licences	
Installed Base				
- Total - Europe	-	10+	5	
- France				
- Germany				
- UK				
- Italy				
- Spain	-	10+	5	

3. Who do you consider to be your main competitors in your market for B&F software products?

Kapiti/Micrognosis

Andersen Consulting

No local companies with equal expertise in banking and securities markets.

B. COMPANY INFORMATION

4. Amount and breakdown of the registered capital:

100% owned by founder : Sr. Faustino Nebrera García.

· *Parent or holding company:*

None.

· *Subsidiaries:*

AIE - a joint venture (50% : 50%) with Cobra Group
GEONET - 100% EnWare owned.

Both these units are targeting the GIS sector in government, utilities, etc.

· *In which European countries are you active? Is all your range of products available in them?*

Active in Spain and Portugal with all services.

· *Details of any distributors, agents or other commercial arrangements that you may have for marketing your products, and for how long have these been established?*

Take software products, modules from overseas for incorporation into our systems, e.g.,

GRMS - a U.S. manufacturing packaging

Teleuse - from Fame Ltd. in Birmingham, U.K.

- Negotiating currently in France.

5. What proportion of your revenues are generated in these countries from the B&F sector?

- 33% as separate profit centre
- The rest:
  - Manufacturing sector, CASE tools and (starting up) insurance.

6. Do you consider that there exist any similarities or synergies between the different country markets in Europe for B&F systems?

A lot of similarity exists between France, Spain and Portugal for B&F applications especially in the securities business.

7. What other areas of activity are you involved in?

- *Industry sectors (industrial process, manufacturing, professional service, CIM,...)*
  - Manufacturing, GIS, general commercial.
- *Software and services sectors*
  - Our professional services capability is founded on good quality staff - training in-house; - recruiting in time to get new contracts (i.e., taking risk).

8. Revenues	1989	1990	1991 Forecast
Total group ( ) Spain/Internat.)%)	207 M ptas 100%	400 M ptas 96%/4%	600 M+ ptas
Banking & Finance sector only (%)	33%	33%	33%
Profit ( )	28 M ptas	40 M ptas	-
Payroll	70	79	80+

C. TRENDS AND ISSUES

9. What do you perceive to be the major problems that B&F institutions are experiencing with regard to software development?

- High investment in obselete systems
- Systems have been and are being designed to suit the organisation and not the client. This must change
- Upgrading systems to mean European levels.

10. In your opinion, what are the areas of highest need?

- Client orientation (e.g., in trading rooms and in bank branches)
- Re-engineering techniques
- Systems Integration (because of high degree of incompatibility in Spain, e.g., Digital popular)

11. What do you see as the biggest challenges in this or these areas to the vendors and why?

- *R&D* - Our philosophy is "high-tech" - Spain immature, gives us an edge.
- *Marketing (sales, pricing)* - Targeting medium-sized users
- *Distribution* -
- *Support* -

12. Where do you see the major opportunities for applications software products?

- *Now* - Front office
  - Bank branch systems.
- *Future* - EDI - Image processing - (EnWare has a project with EXPO92 in Seville)

13. What is the rôle of applications products for your company?

- The majority of our revenues are earned through our Service Products - packages are something else.

	% Internal Resources	% Sub-contracting
· Support turnkey sysems - very important	100%	-
· Support systems integration	100%	-
· Support processing services/ systems operations	No activity here	

14. What do you see as the major threats to your organisation in the B&F market?

Slow decisions in banks - need fast lead times - as design escalates up hierarchy, so risk of being 'spiked' by hardware vendors increases.

15. What do you see as the major areas of opportunity in the B&F area?

- EDI
- SI
- Image Processing (for documents)

16. Are there any other major trends or issues concerning the B&F market that we haven't aleady covered?

No.

INTERVIEW REPORT

ERITEL
(includes Eria and Ceninsa)
Paseo de la Casteltana, 141,
28046 Madrid, Spain
34.1.348 11 14

Sr. José Manuel Vazquez Sierra,
Director-Marketing and Communications

A. BASIC DATA CAPTURE SECTION

1. Which of your software products are targeted at the banking and finance sector

Eritel has been trading in the form of one company since 1/1/91 although the legal entity only came into being today, 26/6/91.

We do not have packaged products targeted at the banking sector, although with the shareholder interests from several big Spanish banks we inevitably do custom systems in that field. This work is particularly strong in the old Eria project stream. About 4% of our revenues are for kernel products.

Ceninsa operates as a processing bureau. It was acquired by Eria and will remain a separate trading entity until the end of this year, after which time it will be integrated into Eritel or else divested.

2. Products description and information

- Projects for banking and finance relate to most aspects of the banking sector's work.

- No brochures are currently available.

3. Who do you consider to be your main competitors in your market for B&F software products?

- We are now the largest professional services company owned in Spain.

- Other software companies that have bank parentage are competitors, e.g., CCS, Ibermatica, Cibernos.

B. COMPANY INFORMATION

4. Amount and breakdown of the registered capital:

Shareholders are:-

INISEL 51%
(a subsidiary of the State holding company INI)
Telefonica 39%
Others 10%

· *Parent or holding company:*

· *Subsidiaries:*

Holdings in: Ibermatica - 39% }
Seinca - 14% } all Spanish companies
Sadiel - 9% }

· *In which European countries are you active? Is all your range of products available in them?*

Only Spain.

· *Details of any distributors, agents or other commercial arrangements that you may have for marketing your products, and for how long have these been established?*

NA

5. What proportion of your revenues are generated in these countries from the B&F sector?

13% of our overall revenues (all in Spain) are earned in the B&F sector.

6. Do you consider that there exist any similarities or synergies between the different country markets in Europe for B&F systems?

Spain is behind in everything, but we wish to catch up. This was a good time for us to merge.

7. What other areas of activity are you involved in?

- Industry sectors (industrial process, manufacturing, professional services, CIM...)

- Government	35%
- Telecommunications	35%
- Manufacturing	12%
- Others	5%
- B&F	13%
	100%

· *Software and services sectors*

- Processing Services	3%
- Professional Services	45%
- SO	1%
- SI & Turnkey	36%
- Training	-
- Equipment	12%
	97%
- Application Products	3%
	100%

8. Revenues	1989	1990	1991 Forecast
Total group ( ) /Internat. (%)	-	16,386 M ptas	19,000 M ptas at least
Banking & finance sector only (%)	-	12.9%	
Profit ( )	-	NA	
Payroll	-	1,914	

"- maybe 50% growth this year"

C. TRENDS AND ISSUES

9. What do you perceive to be the major problems that B&F institutions are experiencing with regard to software development?

- Need to rewrite major systems if they want to enter new service areas.

10. In your opinion, what are the areas of highest need?

- Consultancy
- Systems Integration
- The approach which these two imply will ensure a better quality product than before.

11. What do you see as the biggest challenges in this or these areas to the vendors and why?

- *R&D* - understanding the needs
- *Marketing (sales, pricing)* -
- *Distribution* -
- *Support* -

12. Where do you see the major opportunities for applications software products?

- *Now and in the future:* - Not enough experience to know
  - We are open to all ideas
  - International development is our need

	% Internal Resources	% Sub-contracting
· Support turnkey systems	100%	if necessary
· Support systems integration		
· Support processing services/ systems operations	Not applicable	

14. What do you see as the major threats to your organisation in the B&F market?

Not given enough attention in the interview time allowed.

15. What do you see as the major areas of opportunity in the B&F area?

- Just have the resources to meet the demand.

16. Are there any other major trends or issues concerning the B&F market that we haven't already covered?

No.

INTERVIEW REPORT

TELEINFORMATICA SA
Paseo de la Castellana, 93,
28046 Madrid, Spain
34.1.556 1514

Sr. Enrique Biel Duarte, Consultant EDI
Sr. Pedro Lopez Castellanos,
Director Banking and Finance Services

A. BASIC DATA CAPTURE SECTION

1. Which of your software products are targeted at the B&F sector

For 10 years we have been the Spanish distributor for the GEIS services. During that time we have changed both our name and our ownership. Some of these GEIS network services are targeted at the banks and other financial institutions, e.g:

- Cash management and other corporate services
- Trading services
- Risk/exposure management

These services are supported by software products resident either on our processing bureau machines or on customers local systems (to provide front-ends, communications links, etc.)

2. Products description and information

(See the following table).

Question 2	Products		
Product Name:	Service Line 1 Corporate Services	Service Line 2 Trading Services	Service Line 3 Risk/exposure Management
Brief Description/ Principal Functions:	Cash Management	Data Transfer and Interchange · Orders · Settlement	
- Back/Middle/Front	Front/Middle	Front	Middle
- Typical Customisation %	10-20%	0-50%	50% - 100%
	Bank to client or two-way	Real-time three-way connection - bank - broker - client	
Equipment Platforms: Please specify equipment, e.g. AS/400 and languages supported)	Run on GEIS network which has two nodes in Spain - Madrid and Barcelona. - uses CSB (Consuelo Superior Bancario) Spanish EFT protocol.		
(IBM) - Now (Digital) (UNIX) (PC)	- Banks have IBM, Digital - Open Systems are OK	PCs - UNIX later	VAX PCs
- Planned (NB UNIX)			
- Telecomms/Network Capability	Yes	Yes	Yes
Product Origin/history: - Date of introduction	Continuous evolution since 1970s	1985	1988

Question 2 (Cont'd)	Products		
Marketing channels: (Please specify numbers)	NA		
- Direct Sales Force/#	All sold through 5 strong sales team		
- Agents/# - Distributors/#	} None as such but banks act in this way with their corporate clients		
- Alliances/#	-	-	-
Target markets:			
- Organisation	- Banks - Corporate clients	- Banks - Brokers	Banks
- Client type	IS Manager + General Manager	Trading Executives	IS Manager + General Management
Licensing arrangements/fee:	Sold with variable initial take-on fee which is a function of service and the degree of customisation. Thereafter, transaction based.		
Installed Base - Total - Europe			
- France	-		
- Germany	-		
- UK	-		
- Italy	-		
- Spain	8 banks* with 2,000 + customers	10-20	5

* In Spain, although there are several hundred banks, many of the smaller regional or savings banks are allied to one or other of the big banks. Savings banks are non-profit mutual organisations.

3. Who do you consider to be your main competitors in your market for B&F software products?

Not much competition in this area - Most likely to come from large banks organising their own network services for clients.

B. COMPANY INFORMATION

4. Amount and breakdown of the registered capital:

Teleinformatica became a wholly-owned subsidiary of Banco Bilbao before its merger with Banco Vizcaya in 1989. Originally a subsidiary of GE, it was also owned at one time by Sema-Metra of France.

· *Parent or holding company:*

BBV

· *Subsidiaries*

None

· *In which European countries are you active? Is all your range of products available in all?*

- Spain only, but multi-nationals based/head-quartered in Spain are supplied by us

- We market two lines of business:

  · GEIS services are one-third of our revenues.

  · PC distributorship is two-thirds.

· *Details of any distributors, agents or other commercial arrangements that you may have for marketing your products, and for how long have these been established?*

We are GEIS distributors, there are no subdistributors.

5. What proportion of your revenues are generated in these countries from the B&F sector?

NA to overseas

6. Do you consider that there exist any similarities or synergies between the different country markets in Europe for B&F systems?

- There are broad similarities. There is a tendency to develop local applications. The 1990s will become more open in financial markets.

- One important trend in Spain is for the banks to become more fully involved in Insurance.

7. What other areas of activity are you involved in?

- *Industry sectors (industrial process, manufacturing, professional services, CIM, ...)*

- All industry sectors can and do use GEIS services through Teleinformatica.

- *Software and services sectors*

- E-Mail, EDI.

- Seventy percent of our revenue comes from PC distributorship - sometimes this is in conjunction with the GEIS services projects.

8. Revenues	1989	1990	1991 Forecast
Total group ( ) Spain/Internat.(%)	2,500 M ptas 100%/-%	3,000 M ptas 100%/-%	3,500 M ptas,est. 100%/-%
Banking & Finance sector only (%)	30%	30%	32%
Net Profit ( )	10%*	8%*	10%*
Payroll	70	75	80

* INPUT estimates.

C. TRENDS AND ISSUES

9. What do you perceive to be the major problems that B&F institutions are experiencing with regard to software development?

- Bank mergers are uncertain - will they happen?

- Meanwhile this is not good for the market - it is hopefully a short-term thing.

10. In your opinion, what are the areas of highest need?

- Trading area - but there are too many competing solutions - therefore the banks wait.

11. What do you see as the biggest challenges in this or these areas to the vendors and why?

· *R&D* - Develop client needs

· *Marketing (sales, pricing)* Recruiting - training sales force in banking

· *Distribution* - *NA*

· *Support* - Teleinformatica gives second line - we train bank sales forces to give first line support

12. Where do you see the major opportunities for applications software products?

· *Now and in the future*:
- Banks and corporate users want the same products for EDI/EFT purposes. The trend is to productise.
- Risk exposure is very little penetrated - banks are waiting for 1993

13. What is the rôle of applications products for your company?

They are part of our services.

	% Internal Resources	% Sub-contracting
· Support turnkey systems - very little	NA	NA
· Support systems integration	rare	0
· Support processing services/systems operations	100%	-

14. What do you see as the major threats to your organisation in the B&F market?

- In-house applications growth

15. What do you see as the major areas of opportunity in the B&F area?

- Internationalisation of system
- EDI for banks, etc.

16. Are there any other major trends or issues concerning the B&F market that we haven't already covered?

No.

Appendix:
U.K. Interview Profiles

BIS BANKING SYSTEMS INTERNATIONAL LTD.

Bernard Barnes, Marketing Manager

The Company

Established in 1975, BIS Banking Systems has developed a well respected range of software products for the international banking community. MIDAS is its leading and best known product.

The company is the subsidiary of the BIS Group, which in turn is 100% owned by NYNEX of the U.S.A. following its acquisition in 1987. The BIS Group employs 1,700 staff in the U.K. The Banking Systems company employ about 700 staff and had a turnover of about £40M in 1990. Some 200 staff are devoted to R&D and product developments.

The company's main centres of activity are the U.K., Luxembourg (120 staff) and France.

Switzerland, Germany and Spain are next in importance although there are no local offices. The company has other offices in major banking centres outside of Europe (e.g. Japan).

Because of its focus on Banking systems, the company has been somewhat less affected by the past 'big bang' slump in securities trading than many other companies. It has shed some staff but seems to have maintained a healthy flow of business and profits. Roger Graham, the BIS Group MD has claimed that NYNEX is developing the synergy between BIS products and communications network services to good effect. However, little of this seems to have emerged in the U.K. as yet. It is probably predominantly a U.S. effect.

Key Banking and Finance Products

MIDAS ABS (Advanced Banking System)

This is the key product family. Developed in-house in 1979, it still earns the majority of the company's revenues. Many global and major national banks are clients.

It is a modular product offering comprehensive functionality for wholesale and retail banking. Functions include treasury management, FOREX, risk management, investment management, funds payment, lending, and management and operational control. Originally developed on IBM S/34, the product has undergone continuous development and migrated through the hardware range of S/36 and S/38 to reside on AS/400 currently. PS/2s are used for the front-end and the RS 6000 box (running AIX) can be included for some functions. There are no current plans for further product migration.

All sizes of bank are target clients. The smaller banks typically use the product with little customisation. Larger banks can afford to tailor the product to their specific needs. Clients also include Building Societies and corporate traders.

FUNDMASTER

FUNDMASTER provides multi-asset multi-currency investment management functions. Its a modular design based upon general ledger, stock management, market and client related information. It uses SWIFT and telex communications, and provides comprehensive back office facilities for cash management, portfolio valuations, input investment instructions, control allocations, commissions and safe-keeping operations.

The product was developed by BIS and launched in April 1986. CASE tools were used to develop the product in RPGIII. Unusually the product is also available to clients as a logical design for implementation on most hardware platforms. To date, no client has taken up this option whereas four sales of the completed product on AS/400 have been made.

The product sells for around £1M with a high degree of customisation (up to 50%).

AGS is considered its main competitor.

Retail-Plus

Retail-Plus is designed to help retail finance organisations to review and analyse customer data and target new products and services to them. Each product or service can be identified in the system and facilities are provided for assessment of product profitability, client profitability and a management information.

It is targeted at banks with up to 10 branches with medium to high volumes of retail banking business.

BIS acquired the source code of the product from CVS Newtrend three to four years ago in the U.S. BIS developed the system further and sells it as an own product for £250K - £400K. It has been on sale for about six months, with clients in Mauritius, Hong Kong and Yugoslavia.

Jack Henry and IBM offer competing products. That no Western European clients of BIS have taken the new product suggests that it it could be a late entrant to the market.

Retail-Plus runs on AS/400 hardware and can communicate with ATMs and other interfaces for customer data collection. The trade finance product Leo is sold in conjunction with Retail Plus.

BIS Leo

This is a trade finance system and automates the functions of accounting, risk management and administration. It consists of five integrated modules covering:

- letters of audit
- bankers acceptances
- collections
- bills financing
- reimbursements.

The product runs on AS/400 in native mode and provides a powerful PC-based document (e.g. letters of credit) customisation capability which can link direct to customers' PCs.

Originally acquired from a U.S. company, BIS has sold Leo for six to seven years. There are 65 sites, 20 of which are in Europe.

DR-ONE

This is a PS/2-based dealing room delivery system running a token ring LAN. It is based on an open architecture and allows for the integration and delivery of both digital and video market information sources, in-house host systems Excel and Lotus 1-2-3.

Acquired two years ago from an Australian company, there seems to have been few European sales. There is an installation in Holland, with the largest system in Australia where Westpac has a 180 position system installed.

The workstation sells for $30K. There is very little customisation involved.

Financial Performance

Since NYNEX acquired BIS, there have been no company figures published by the group itself beyond statutory requirements. It is believed that the BIS Banking Systems Division has weathered the recession in the U.K. quite well and has benefited from an extensive customer base in other world banking centres in the U.S., Japan, Hong Kong and Western Europe.

COMPANY PROFILE

FINANCIAL SYSTEMS LTD.

Peter Galliot, Managing Director

The Company

Financial Systems Limited started about 11 years ago and developed its first banking product on a Micro 5, one of the first multi-user PCs. Recently, turnover reached £1M, having grown steadily for several years. Profitability is estimated at around 10-15% of turnover.

BOS Software Limited (our original target respondent) is now part of the TIS group, which uses Financial Systems as its banking and finance sector VAR. TIS is very UNIX orientated and this has shaped the software development strategy of Financial Systems. The MicroBank suite of programs consisting of modules covering a wide range of banking functions is the main product range. Fund 2000 and Bank 2000 are new products, with the later eventually superseding MicroBank. The company is small, responsive to client demands and claims to invest heavily (in proportion to turnover) in product R & D. However, the company has few sales overheads as it relies on references from TIS, its distributors in Hong Kong and the Cayman Islands, referrals from existing clients and sell-ons.

Its market focus is the offshore banking industry and clients are more likely to be in Gibraltar and the Cayman Islands than in London.

Some 80% of clients take the products as they stand. A few larger clients spend as much on customisation as on the product, but more typically customisation costs about 50% of the initial product price.

The company seems content with its niche role and spends little time worrying about market trends and developments unless they arise through the existing client base.

Key Products

MicroBank

MicroBank is the main, modular product covering banking, securities, trusts, corporate administration and accountancy, fixed asset register, sales ledger, etc. It is a back-office system targeted at the offshore banking market. Primarily the product is PC based, but, through UNIX, it can operate on a wide range of platforms, including VAX. Communications are provided by BOS's (or TIS's) own Arcnet product or by using Novell software.

Bank 2000

This is the replacement product for MicroBank and is currently under Beta test at two sites. It runs on the same hardware platforms.

Fund 2000

Also a new product, with four sales to date, Fund 2000 is targeted at Unit Trust managers operating in the offshore financial markets.

Financial Data

None is provided.

COMPANY PROFILE

MCDONNELL DOUGLAS INFORMATION SYSTEMS LTD

IBS Business Development Manager: Allan Barwick

Marketing Manager: Roy Davies

The Company

McDonnell Douglas Information Systems is the computing services arm of the McDonnell Douglas Corporation, well-known as the airframe manufacturer. Since its entry onto the open market in 1960, it has been producing computer systems in a number of sectors:

- Manufacturing
- Healthcare
- Local Government
- Networking systems
- Database systems.

The Finance Division

Representing some two percent of the U.K. company's turnover, the Banking and Finance division is one of five divisions, in the U.K. company. Its activities cover banking, securities, insurance and human resource markets (payroll etc.). McDonnell Douglas (MDISI) offers a range of software products for the finance sector, many developed using its own 4GL, PRO-IV, and often in turnkey projects involving its own proprietary hardware and operating systems. VAX and PCs are the preferred hardware platforms although other platforms can be accommodated. PRO-IV produces code in 'C' to give it a large degree of portability across different platforms. However, the AS/400 range is reported to compile and execute 'C' code very inefficiently compared to VAX and others, so creating a barrier to solutions migrating onto this platform.

McDonnell Douglas has a worldwide network of offices, each focussing on its local market. The U.K. company therefore primarily targets the U.K. and Eire. However, the London-based banking sector comprises companies operating globally and this results in McDonnell Douglas serving clients and their operations overseas from its U.K. company.

At present, only the banking market shows a lot of synergy across national boundaries. The differences are largely confined to local reporting requirements and the length of the working week. (Japan however calculates loan interest differently from elsewhere).

Stock broking is not regarded as providing a common set of practices across Europe. However, it is an active market, with many European bourses developing electronic trading systems. Therefore the scope for widespread product sales lies with enabling technology (workstations, interactive and on-line databases) rather than in specific applications products.

The insurance market has a fairly common range of requirements across Europe. The U.K. market is the most varied, most competitive and innovative and the rest of Europe is also starting to develop. Several Australian developed software products have been successful in the U.K. market.

With this perspective, McDonnell Douglas believes that its success in the U.K. markets will well equip it for increased European competition and that more opportunities for business development will emerge as European markets open up.

McDonnell Douglas' approach to the markets is product led, including both hardware and software in a turnkey solution. The company deliberately maintains product customisation with the result that sales typically comprise equal values for software, hardware and services (ie. training/implementation/ customisation). The company finances its own R&D although it invariably seeks a business partner from the target sector to ensure that developments are focussed on genuine market needs. McDonnell Douglas is also developing a more 'open systems' approach although in part this is through the use of PRO-IV rather than through a more traditional route.

McDonnell Douglas has suffered from the post - 'Big Bang' recession in the banking industry although the extent of this is not known. It sees the current market as requiring cost-effective solutions offering up-to-date facilities for 24-hour operation, interactive use and customer orientation. It believes that VAX

based solutions offer it a price advantage over IBM-based ones (although AS/400 solutions can be very competitive, so this could be wishful thinking). The company is introducing new products for the insurance market.

Key Software Products

IBS

A wholesale banking package targeted on the foreign branches of major banks, IBS offers a wide range of modules covering commercial lending, trade finance, foreign exchange, precious metal and money market trading. Developed in the early 1980s by a New York based company, it was bought by Tymshare and was acquired by McDonnell Douglas in 1986. MDISI rewrote the system in BASIC for the VAX computer and most recently it has produced a PRO-IV based system. The system provides EFT and Swift interfaces.

There are now over 50 installations worldwide.

Confirm

Confirm is a real-time system for the management of Dealing Confirmations; that is, the matching and checking of money market and foreign exchange transaction confirmations. This is a back office system running on VAX and PCs and communicating via the Swift system. Launched in 1990, it is installed in seven sites in the U.K. As yet there are no other sales elsewhere. The product is targeted on the wholesale banking market.

S4

S4 is a stock broking settlements support system, providing coverage of the full range of U.K. and international instruments. Originally developed three years ago for Morgan Grenfell, the system has just been rewritten in conjunction with another client. It runs on MDISI hardware.

MDISI is also about to acquire rights to two products targeted on the insurance industry; one for general insurance, the other for life assurance management.

Financial Performance

No figures were offered.

COMPANY PROFILE

SD-SCICON PLC

Ray Waite, Marketing Director

Banking and Finance Activity Profile

The Company

SD-Scicon was formed in 1988 when Systems Designers bought the Scicon Corporation from BP. Since then, the company has undergone significant restructuring and the divestment of some of its European and U.S. operations. In particular, it sold its U.S. subsidiary, Warrington Financial Systems Inc. in February 1990 and its German operating Company SCS to Cap Gemini Sogeti in August 1990. SCS had a significant business in the banking and finance markets of Germany.

In October 1990, SD-Scicon acquired a 51% shareholding in Charbonnages de France Informatique (CdFI). This company is being managed through GFI, SD-Scicon's French subsidiary. Its services are largely IBM mainframe computer bureau based with a significant software products business. The products include a range of accountancy systems.

In Europe the company now largely operates from the U.K. and France with a number of small subsidiary and joint venture companies in Benelux, Italy, Spain and Greece.

The company provides a wide range of software products and services to most industrial, commercial and government markets. These are offered throughout Europe. For the continuing business, some 15% of European revenues are derived from services to the banking and finance markets. Growth in the French market has been counterbalanced by a declining U.K. activity over recent years.

Overall, the company made an increased loss in 1990 despite selling its major loss-making subsidiary, SCS. The losses have arisen from major software development project over-runs (in the U.K.). At the time of writing (August 1991) the company has been subject to predatory bids from Cray Electronics and EDS. Survival as an independent company is the current priority. There is little sign of a coherent business development strategy or cooperation among the operating companies.

Finance Activities

Many divisions of SD-Scicon sell some or all of their products and services into the banking and finance sectors. They cover a diversity of applications.

Connex Europe is an SD-Scicon business based in the U.K. It was established in early 1990 following the renewal of earlier marketing agreements with Deluxe Data Systems Inc. to sell their Connex EFTPOS product (and the recently launched Asset product for credit/debit card management) throughout Europe.

In the U.K., SD-Scicon offers IBM mainframe system operation services, a range of EDI software products and message and date switches (based on X.400 standards). These are sold across many markets. The Processing and Network services business unit contains a software development and consultancy group focussed on the banking, finance and insurance markets. Projects are largely IBM mainframe based.

In France, the SD-Scicon group has an equally diverse range of product and service offerings covering many markets. In GFI this includes systems operation on IBM mainframe, Bull and Tandem hardware, file transfer products, EDI and Telematics. It also has production specifically targeted at the insurance market and is developing some niche kernel software for the banking market in association with a few clients. CdFI is largely an IBM mainframe service bureau and systems operations company. However, it has some accounting packages which have sold well in the French market as well as ESQUIF, a product for managing Social Security top-up payments to sick people with insurance cover from French Mutual Assurance Companies.

In the U.K., SD-Scicon's Banking and Finance activities have undergone major retrenchment since 'Big Bang'. At one time there was a 'Banking & Finance' department but this was disbanded in 1988 with some redundancies and re-allocation of staff to other businesses. The remnants of this department are now largely associated with the Computing and Network Services group, which provides its services across many vertical markets.

There seems to be no company-wide strategy for the banking & finance market. Systems operation services and communications products are sold opportunistically or to long-standing clients (e.g. Credit Suisse). The small consultancy and software development group has some on-going project work and is seeking new niches to exploit. Its Taurus Link product is one such example.

There are no indications of attempts to coordinate U.K. and French developments in the banking & finance market.

SD had several largely unsuccessful years trying to sell Connex. In 1988 it was decided to raise the profile of the activity and create a European-wide sales effort. SD-Scicon therefore established Connex Europe to spearhead this. This has been much more successful, with several large sales in the U.K. and one in Italy, and with the markets showing good potential.

Other products are sold from a products group profit centre which has no specific market focus.

In France, GFI continues to take a 'services' approach to selling through its large systems operation capability. Products often arise from applications developed for particular customers. Vertical market penetration therefore tends to be opportunistic in the first instance. GFI's approach is consistent with that taken by many other companies on the French market. GFI has been consistently (but not excessively) profitable over recent years.

Products for the insurance market are the most fully developed set. However, there is currently a lot of interest in the securities and banking sectors and developments are in hand in the following areas.

Bourses

- A variety of communications products allowing dealers, etc., to access the RELIT system. Some have been available since mid-1990.

Banks

- A system for managing foreign currency loans to industry for major projects and sales activities, the system will be called Crystal.

- New bank accounting systems, ready for the change in reporting requirements in 1993.

- There are plans to develop asset and liability management systems.

All banking systems will be on IBM mainframe using DB2 and CICS.

Key Products for the Finance Market

The main application products are:

Connex

- A leading EFTPOS product running on IBM mainframe and Tandem hardware. Developed by Deluxe Data Systems Inc. of the U.S. in 1971, it is sold under license by SD-Scicon throughout Europe. SD-Scicon has over 4 years experience of the product.

  Connex provides a full range of EFTPOS functions, linking ATMs and POS terminals into a central EFT system and is particularly suited to clients with high volumes of transactions. Connex also provides a settlement facility.

Connex Asset

- This is a recently launched credit/debit card management system also from Deluxe Data Systems. SD-Scicon has taken on the system but does not yet seem to have made any sales. The product runs on the same hardware platforms as Connex.

Taurus Link

- This is a new PC-based system developed in Oracle for companies dealing in U.K. equities and requiring access to the new London Stock Exchange settlement system (Taurus). The intention is that Taurus Link avoids users needing to redevelop their existing settlement systems by providing a link between them, their client database and the Taurus data network.

GEFIARD, GEFIRENTS

- These are kernel products for the management of life and nonlife insurance business. Developed with Norwich Union in Paris as an application project, the kernel products were launched at the end of 1987. Each new scale requires significant development and customisation.

ESQUIF

- This is a uniquely French product developed by CdFI. It is targeted at the Mutual Assurance companies that provide top-up insurance to supplement French Social Security payments when an individual is ill. CdFI claims to have 15% of the French market with 25 to 30 installations. There seems to be few competitor products.

Network products include:

TED/TOM

- For file transfer between IBM mainframes. Developing by GFI and sold under licence by Data Delivery and Management Systems Inc. of the U.S.

PC X.400, IMX.400

- PC- and VAX-based systems conforming to the X.400 standard for data interchange. These products, developed by Scicon in the U.K. during the late 1980s, enable FAX, Telex, EDI, and E-Mail to be sent and received from one system.

EDI: Interbridge

- Sold under licence from SITPRO, Interbridge provides a message formatting facility to recognised EDI standards. It runs on a wide range of hardware platforms including PCs.

EDI: Workstation

- An SD-Scicon development providing a user interface to multiple EDI networks, document formatting and translation of received documents for use by other user systems. It is VAX based.

Comutex

- A GFI developed Videotex product based on Tandem and IBM mainframes. It can handle both Minitel and IBM protocol terminals. The product operates within custom application software.

All products are sold for a one-time licence fee with optional annual maintenance fees thereafter. Comutex is at the heart of GFI's Telematics service, and so earns a significant level of associated network fees income.

The pricing for some of GFI's banking kernel software is very 'flexible' and is determined by the need to win a development contract. GFI does not plan to make a profit on the software in its own right. Instead, it is used as a sales aid.

COMPANY PROFILE

SEMA GROUP

Banking and Finance Activity Profile

Graeme Ferraro, U.K. Marketing Director

The Company

This was formed in June 1988 when the CAP group in the U.K. acquired all the shares of the SEMA Group SA of France in an exchange of shares (plus cash). The subsequent poor performance of the U.K. operations resulted in French management taking full control of the company and the company name changing from SEMA CAP to SEMA Group plc.

The company provides a wide range of software products and services to most industrial, commercial and government markets. It is well established in France and the U.K., with significant operations in Spain and Germany and a presence in several other European countries.

The finance market is its largest revenue-earning sector on a company wide basis, representing 22% of group turnover in 1990.

The U.K. Finance Division

This division represents some 15-20% (~ £22 million) of U.K. turnover, and is growing again following the post 'Big Bang' collapse in the securities market and a slowdown in banking generally. During 1989 and 1990, SEMA slimmed down its finance division significantly, reallocating staff or shedding them altogether.

SEMA offers a limited range of products in the U.K., mainly for dealing room systems, card management and treasury operations. BIS and EDS compete strongly for the bank back-office systems market, and SEMA does not believe there is a viable market for them in the U.K.

Consultancy is a growing strength for SEMA. In 1990, a new consultancy group was formed to bring together skills dispersed around the company in various operational units. The finance market is a target for this group.

Bespoke software development remains a significant source of revenue and SEMA has entered into various development and customisation projects for clients or partners. For example, SEMA has a cooperative deal with Reuters on RMS, their Taurus dealing room system, which will be sold as a Reuters product.

SEMA sees no major threat to its U.K. finance activities except in the unlikely event that a company such as EDS were to buy market domination.

For the future, SEMA plan to grow their finance activity. It sees the market looking for proven products and possibly for outsourcing of a wide range of services. Both these trends are the result of banks fighting to contain costs and improve efficiency.

To address the products market, SEMA is looking for partners to share development risks (these could be clients as well as other vendors) or ready-made systems to acquire or sell as agent.

Systems Operations (SO) is run as a separate business within SEMA and it is felt that there are growing opportunities for SO in the financial market. Developing market awareness is seen as key to the business strategy which suggests that SEMA is not content with its present market visibility.

Key U.K. Products

CARDPAC

CARDPAC is a plastic card management system. It is used by the issuers of cards to manage accounts and SEMA claims that the system handles three-quarters of retailer issued cards in the U.K. Clients include large retail chains with their own store cards as well as banks.

The products were originally developed by Credit Card Systems Inc. (CCSI) of the U.S. SEMA acquired an exclusive European licence and then adapted the product for European and Far Eastern markets. It runs on AS/400, Tandem, and IBM mainframes, and is targeted at the medium-sized card issuer (50,000 plus cards in issue) rather than the majors such as Barclaycard.

Priced at £100-120K, the product usually undergoes customisation for the client. Contracts are typically 60% product license, 40% customisation fees.

CARDPAC has been on the market for 4-5 years and is sold through a salesforce numbering 4-5. There are no plans to migrate the product to UNIX or other hardware platforms, but there are development plans for a successor product.

IBOS

IBOS is a small product selling for about £25K targeted at the treasury function of wholesale banking. It is PC based and uses the Novell networking system. The base licence covers four workstations and is prorated for larger configurations. The product is usable as it is. Larger clients sometimes make extensive developments costing up to five times the product value.

There have been eight U.K. sales and two overseas, one of which was via a Greek distributor.

HDSD

HDSD (High Speed Dealing System) is a software kernel developed by SEMA for use in dealing room systems. A major client is National Westminster Bank who has a 240 workstation money market system. HSDS is based on Status and PS/2 computers.

The product is used in large bespoke system developments where the product licence fee might represent only 10% of the total contract price.

Originating in 1980, only five sales have been made to date, although there are signs that the market for the product is reviving again.

CIS, CIFER

SEMA is the agent for these products but has only just introduced them into the U.K. Originating in the U.S., the products run on IBM mainframes and enable clients to 'clean up' customer data files (i.e., detect duplicated entries and multiple variants of a single client/address).

Financial Information

See SEMA interview report in Appendix B for France.

COMPANY PROFILE

BASE 24 LTD.

David Reid, Marketing Director

The Company

The company is named after its most important product.

Since January 1989, it has been jointly owned by SEMA and ACI. ACI (Applied Communications Inc.) is an American company which has been developing EFT software since 1975. Base 24 (the product) was launched in 1982 and CAP (now SEMA) acquired the marketing rights in the mid 1980s. The joint venture company was formed following CAP's early sales success and has the product marketing rights for Northern Europe. Tandem has recently acquired ACI in the U.S. Financial data is not published, but INPUT estimates that Base 24 (the company) has a turnover around £5-10 million pa.

With 245 customers and 400 installations, BASE 24 is the most successful EFT/POS/ATM product on the market, particularly in the U.K. where it claims an 80% market share. This is too high a claim as there are 6 CONNEX users and 13 Base 24 users in the U.K. Base 24 perhaps has 50% of the U.K. market.

ON/2 from Logica has been a competitor in smaller EFTPOS applications, although since March this year, Logica has stopped supporting it. CONNEX is reputedly more cost effective for high throughput users, and there is no doubt that SD Scicon's recent successes with CONNEX have in part prompted BASE 24 to develop the XP version of its product in conjunction with Barclays. This XP version is a high throughput, reduced functionality product.

Competition is also present from IBM with its OCM 24 system, although it seems to have made few sales. Action 2000 from Software Sciences, although applicable, does not seem to make much impact on the BASE 24's market.

Base 24 is largely sold from the U.K. via a 20-strong sales team. In France, Arthur Andersen is a distributor of the product, as is Eritel in Spain. It seems likely that there are self-appointed distributors (i.e., they approached ACI or BASE 24) and that their local knowledge and presence has proven useful in promoting sales. There seems to be no move to appoint additional European distributors.

Product development is firmly directed at improving functionality or speed in direct response to client needs. With Tandem, a 50% shareholder, BASE 24 has no plans to migrate the product to other platforms or develop UNIX versions.

It is interesting to note that SEMA maintains an arm's length relationship with BASE 24 and has itself developed few Tandem skills (an exception is in Spain). Also, Base 24 sees some scope for developing systems operations (SO) services, an expertise of SEMA. Yet these potential synergies do not seem to be exploited. The reason is not clear although it possibly indicates that SEMA's own finance work has not performed well, and the company is unwilling to devote more resource to this area.

Key Products

Base 24

The product comes in two derivatives, one targeted at the ATM/EFT market, the other at EFTPOS. It provides a full range of switching and funds transfer functions. It runs on Tandem computers (earlier status versions have been abandoned), and there are no plans to migrate the product to other platforms. There are 245 customers worldwide. Thirty of these are in Europe, 13 of which are in the U.K. and 4 in Spain. Other customers are widely spread throughout Europe.

In conjunction with Barclays Bank, Base 24 is developing a high throughput, reduced functionality version of product.

Polebase

Developed during 1990 by BASE 24 and launched on Tandem hardware in September of that year, the product is an off-line data collection system for use with EFT/POS/ATM systems. Three sales (in the U.K.) have been made to date.

Columbus

This recently launched (1991) state of the art EDI product is designed to complement the specific switching functions of Base 24 and clearly has a wider market applicability, i.e., to other sectors as well as banking.

Financial Information

None is published.